THE LANCET.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

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Theatre, General Dispensary, Aldersgate-street.

Lecture XVIII.

Gentlemen,

At our last Meeting, I spoke of the *diagnosis*, and of the *causes* of inflammation. With respect to the *diagnosis*, I observed that the local symptoms upon which we place the greatest reliance, in distinguishing inflammation from other diseases, were *continued pain*, and *tenderness to the touch*, with *disorder of the functions of the part*. But I observed at the same time, that neither of them was implicitly to be relied upon; and I instanced particularly, a case, in which disorder of function had led to a wrong conclusion, as to the seat and nature of the disease. We have, however, another guide, which, when present, is entitled to the greatest confidence; namely, *pyrexia* or a febrile state of system, the slightest degree of which is indicated by a furred state of the tongue.

The *causes* of inflammation were divided into *occasional* and *predisposing*; the former class were subdivided into *direct*, *indirect*, and *specific*. The direct causes include all stimulating and irritating applications, and every kind of mechanical violence tending to injure or destroy the part. The indirect causes mentioned were *cold*; and *fever*, both idiopathic and sympathic.

I observed that the *specific* causes of inflammation were chiefly or exclusively derived from the animal kingdom; and that each of them induced a peculiar or *specific* form of inflammation, not governed by common laws, and, therefore, requiring separate study.

The *predisposing* causes of inflammation alluded to, were excessive irritability of the whole system, or of particular organs; and this, it was remarked, may be either constitutional, or acquired. *Predisposition* may be acquired from many sources, such as, previous disease, particular modes of living, climate, and season. *Weakness* also appears to give a disposition to inflammation from being accompanied, as it usually is, by increase of irritability. *Cold*, in most cases, seems to act rather as a predisposing than an exciting cause.

I shall in the next place, Gentlemen, direct your attention to the

Varieties of Inflammation.

Inflammation is essentially the same disease, wherever situated, although called by different names, most of which have no allusion to the nature of the disease, and therefore tend rather to obscure the subject. Thus fever, catarrh, diarrhœa, dysentery, rheumatism, and many more, are all of them inflammations differing from one another merely, in regard to the *seat* they occupy in the body. Inflammation is influenced by a number of circumstances which vary its character, and likewise, its treatment. These circumstances, therefore, it is necessary you should be acquainted with. I shall proceed to enumerate the chief of them.

1. *The nature of the part affected.* The structure, feeling, and function of each individual part being different from those of others, the signs and effects of disease are accordingly different in each. The simple or component parts of the body, of which each individual organ is composed, being in reality themselves compounded, as I have before stated, they, like the compound organs, are subject to inflammation, which in each produces some difference of effect.

Blood vessels, for example, must be subject to inflammation, which will of course produce its usual effects, disordered action, and consequent disturbance of function. The effect of acute inflammation on

an individual artery, however, has not been much noticed, probably because it seldom occurs without a corresponding affection of the neighbouring parts. But arteries are subject to a chronic kind of inflammation, which, by gradually altering the structure of the vessel, lays the foundation for the aneurismal state. In *veins*, a similar process is observed; as when they become varicose. This state is not, in either case, a mere enlargement of the vessel, but actual change of structure, which is ascribable to a slow and indolent kind of inflammation taking place.

An *absorbent*, when inflamed, will have its coats thickened and contracted, and its functions thereby impaired, or altogether suspended. Should the principal absorbents of any extensive part be so affected, anasarca will be the result; as is often seen in the lower extremity of lying-in women, from inflammation arising about the margin of the pelvis, occasioned by the strong pressure made on these parts during parturition, and which involves the great trunks of the absorbing vessels in the groin. This affection has been called, without much meaning, however, *phlegmasia dolens*. If you examine the groin in these cases, you will generally find all the marks of inflammation there; but this is often disregarded, and attention paid only to the swelling of the limb, which is made worse by stimulating applications, while the proper *antiphlogistic* means are neglected. An inflamed superficial absorbent is often known, by the red line which it communicates to the skin above it, and which is traceable to the next lympathic gland.

If a *nerve* be attacked by inflammation, the sensibility of it will be heightened in an extreme degree, and the disease will commonly be attended with most acute pain. The pain in this case, however, may be felt at a distance from the actual seat of the inflammation, as at the part where the nerve terminates. In inflammation about the hip-joint, involving, as it often does, the great sciatic nerve that passes behind the trochanter, there is commonly pain felt at the knee, and often as low as the ancle. The pain in this case, may re-act backwards upon the brain, and disorder the functions of this organ, producing convulsions, tetanus, &c. An inflamed nerve may likewise disorder the action of the muscles to which it is going. In *tic douloureux*, whether seated in the face or elsewhere, the real disease appears often to be at the origin of the nerves in the brain, although the pain is felt remotely at their termination. This serves to account for the little success that attends the operation of dividing the nerve in such cases.

When *muscular fibres* are inflamed, spasm or convulsion will then be the probable consequence; as is seen in the case of the heart, diaphragm, intercostal muscles, and other muscular parts: if the inflammation is slight and long-continued, it may end in permanent contraction; as in the *wry neck*, and the fingers often.

Inflammation of *membraneous structure*, again, produces peculiar effects. But as there are great differences in the structure and functions of the different membranes, so the effects of inflammation will be different, according to the nature of the membrane affected.

When the *serous membranes* are affected by inflammation, those, for example, which line the different cavities, and afford a covering to the viscera, the disease is apt to spread, so as to extend over the whole cavity, and thus, by the mere extent of the inflammation to prove dangerous. Another general consequence of inflammation of serous membranes, is adhesion of the surfaces that are opposed to each other, by which, freedom of motion is prevented, and the cavity obliterated in greater or less degree. These adhesions often take place from very slight degrees of inflammation, especially in the chest, where, however, they produce but little inconvenience, unless great and unusual efforts are made in respiration. The reason is, that in ordinary breathing, the lungs and the thorax, being in constant apposition, move together, without changing their relative situation. But extensive adhesions in the abdomen must necessarily be productive of inconvenience, from the changes that are continually taking place in the relative position of the intestines, according to the different degrees in which they are distended.

Inflammation of *serous membranes*, again, is often followed by accumulation of fluid in the cavity, the exhalation exceeding the absorption. And in this way, dropsy in the different cavities is generally produced, this disease, in the greater number of instances, being merely the consequence of inflammation of serous membrane. Now in many of these cases, the inflammation may be still going on, although there is a considerable accumulation of fluid in the cavity, a circumstance of the greatest moment in practice; as in all such cases, the removal of the inflammation is the first object, as being indispensable to the cure, and which, when effected, is often of itself sufficient for the purpose, the excess of fluid spontaneously disappearing when the inflam-

mation has been once removed: and thus you will understand the grounds upon which *bloodletting* may be often required in dropsy; not in order to cure the dropsy itself, (which indeed is not the disease, but only the consequence of it,) but to take off the inflammation, which is the real disease and the cause of the dropsical accumulation. Happily it is not in general difficult to distinguish these cases in practice, for the two sets of symptoms may be easily discriminated.

In this way is produced what is called *hydrocephalus*, or dropsy of the brain, which in almost every instance is a mere result of inflammation of the *pia mater* and *tunica arachnoidea*, an affection which has had no proper name assigned to it; for the use of the term *arachnitis*, which some have employed, I consider as mere affectation, to say nothing of the absurdity of the term itself. There is no reason to suppose that the *arachnoid membrane* is ever inflamed, distinct from the *pia mater*; nor, if it were, have we any means of distinguishing such an affection during life?

It is worthy of notice, that it is the slighter degrees of inflammation of the serous membranes, that are most likely to be followed by dropsical accumulation; whence it is, that the real origin of dropsy is so often overlooked, and the most favourable moment for treating it lost.

The *cellular membrane*, connecting parts together, is of the nature of a *serous membrane*, and therefore similarly affected in disease. When inflammation arises in this part, it may produce its usual effect, adhesion of surfaces, by which the cells are obliterated, and those indurations produced which destroy the flexibility of the part, and which have been sometimes improperly called scirrhus. A slower and more indolent kind of inflammation is likewise probably the cause of that great variety of tumours, that have their seat in this structure. Another occasional result of inflammation in the cellular membrane, is serous accumulation, under the names of *œdema*, *anasarca*, and *leucophlegmasia*, which, in a large proportion of cases, are often merely consequences of inflammation. Thus it is that anasarca is so frequently a consequence of scarlatina, a disease in which the skin and subjacent cellular membrane are in a state of active inflammation, and, as I observed to you in regard to the dropsies of cavities, the inflammation often continues along with the serous effusion, and then calls for *antiphlogistic* treatment instead of *tonics*, which are so commonly resorted to on these occasions, upon the presumption that the swelling is owing to debility. If such anasarcous swellings depended upon debility simply, we should not find them commencing, as they often do, about the head and superior parts of the body.

The *mucous membrane*, or that which lines the different passages, both the outlets and inlets of the body, as the air passages, the alimentary canal, the urinary passages, and the rest, is also peculiarly affected in inflammation. The structure of the membrane in the different parts mentioned, is similar, and hence the diseases to which it is liable, are in a great degree similar also, the difference depending upon its connexion with neighbouring parts. Inflammation of the *mucous membrane*, when active and recent, is attended with the usual symptoms, heat and redness, with soreness, scarcely amounting to actual pain. The secretion of mucus is suspended, and the membrane becomes dry, as well as hot. After a time, it may be a few hours, or a day or two, or more, the secretion begins to take place again. —At first, it is transparent, thin, and acrimonious, containing an excess of saline matters, and irritating the parts over which it flows. Afterwards, it becomes more viscid, and opaque, and often variously coloured, as yellow, green, or bloody, according to the degree and the stage of the inflammation present. When the secretion becomes copious, the heat and soreness decline, and the other symptoms gradually disappear. In this way are formed the *profluvia* or *increased discharges*, of nosological writers, such as catarrh, diarrhœa, dysentery, gleet, &c. These discharges, though usually considered as the disease itself, and treated as such, are in reality only consequences of inflammation of the mucous membrane which is the real disease. Inflammation of the mucous membrane is oftentimes followed by permanent thickening, contraction, (stricture,) ulceration, or other changes of structure; of all of which, examples are found in the air-passages, the alimentary canal, urinary passages, &c.

Adhesion of surfaces is not a consequence of inflammation of the mucous membrane, as it is of the serous membranes: were it so, indeed, a fatal obstruction might be the result, as in the intestines, the passages of which may be obstructed by stricture or contraction, but not by adhesion of surfaces.

Inflammation of the *ligamentous structure*, again, has its peculiar ties, as is seen in *gout* and *rheumatism*. The density of the parts concerned here, do not allow of much swelling to take place; when this

occurs, it is owing to the inflammation extending to the surrounding cellular membrane. Inflammation in ligamentous structure is very apt to shift its seat, and that very suddenly, and to distant parts; but commonly to those of similar structure; though sometimes inflammation arises in other organs, as the lungs, or brain, or heart; and the inflammation so arising in these parts, has been called *rheumatic*, but improperly. Inflammation, when seated in ligamentous structure, is, in general, long protracted, and not so much under the influence of remedies, (especially *bloodletting*,) as many others.

The *bones* also are liable to inflammation, and they have their peculiarities. Bones are nearly insensible in health, but become acutely sensible in disease.

They are liable to all the changes which inflammation induces in the soft parts, such as swelling, ulceration, and gangrene; but these changes take place very slowly.

The *compound* organs, when inflamed, give rise to peculiar symptoms; consisting chiefly in disordered feelings and function of the part; by attention to which, they may in general be easily known and distinguished; as will appear when we come to treat of diseases individually.

2. Inflammation differs in *degree* and in *duration*; and this difference has been expressed by the terms *acute* and *chronic*. There is no essential distinction, however, between *acute* and *chronic* inflammation; for a mere difference in degree is no ground of specific distinction; while there are all possible gradations between the two; and hence the term *subacute*, which has been applied to the lower degrees of inflammation, can have no distinct meaning.

A division of inflammation has been made into *tonic* and *atonic*, or *active* and *passive*; implying, that in the one case, the action is morbidly increased, in the other diminished below the degree of health; in other words, that inflammation is sometimes a state of weakness or debility. This is not true, as respects the inflamed part itself, which is always in a state of violent or increased action. The difference is in regard to the constitution. This is a point of some importance, because a difference of treatment has been founded upon it.

If you examine a case of what is called the *atonic* species of inflammation, as *ophthalmia* in scrofulous subjects, you always find that the vascular action of the part is increased, giving rise to the usual effects, increased circulation, with increase of heat, and increased secretions. The sensibility of the part is heightened, and there is the usual tendency to the production of new parts. The only difference between this scrofulous form of inflammation, and the most acute, is in degree merely; but as compared with the healthy state, all the actions of the part are in excess. The same may be said of a strumous swelling of the lympathic glands; there is more sensibility, more vascular action, than in health: an increase of growth, and, ultimately, the same changes of structure as in the more acute forms of inflammation, though taking place more slowly. There is, in fact, in both cases, every proof of increased, though disordered, vitality. The only reason for calling them, states of weakness, is, that *stimulants* and *tonics* often prove the best remedies. This may be true, but it does not prove the disease to consist in a weaker action of parts; because increased actions are in many cases best put a stop to by stimulating means.

3. The *stage of the disease* has a material influence on inflammation, both as to its characters, and also the treatment, which requires to be different, and sometimes opposite, in the different stages of the same disease. Thus *bloodletting* is generally safe and proper at the outset of inflammation, but becomes less and less so as the disease proceeds; till at length it is wholly inadmissible. An inattention to this, has been the cause of bloodletting getting into disrepute as a remedy for inflammation, though very undeservedly.

4. Inflammation is likewise influenced by *climate*, *age*, *sex*, *individual constitution*, and mode of life, all of which must be attended to in practice.

5. Inflammation is varied also by the *cause* inducing it. Thus the inflammation produced by cantharides is erysipelatous, while that produced by tartarized antimony is of a phlegmonous or pustular kind. But the greatest difference in inflammation, as arising from the different nature of the cause, is observed in the case of the *specific* inflammations, which differ so much from common inflammation, both in their characters and treatment, as to require to be considered and treated of, as so many different diseases.

Progress and duration of Inflammation.

The *progress* of inflammation is to be marked, because the disease changes its character as it proceeds, and becomes subject to new laws; which affect likewise, the treatment. Inflammation sometimes attacks suddenly with great violence, and then generally with a *cold fit*;

but more commonly it is slight at first, so as sometimes to escape notice for a day or two, or even longer; it gradually increases, till it arrives at the height, and then declines again, at a nearly equal rate with its advance, leaving the part, in a great many instances, in its natural state, and unchanged. This may be considered the natural course of the disease.

Inflammation is seldom stationary, but is either advancing or receding; and its tendency to go off when it once begins to subside, is very strong in many cases. Now, in practice, we often take advantage of this, and do not continue to use violent means of cure as long as the disease lasts. For instance, it is not necessary to bleed day after day, till the disease is wholly gone off. It is enough to take blood till the disease begins to decline; and then it will probably go off if left to itself. And thus a great deal of unnecessary bleeding is spared to the patient. But if the inflammation appears to be at a stand, and more particularly if it shows a disposition to advance again, then recourse must be had to further bloodletting.

Inflammation is more rapid in its progress in some parts, than in others, as in the small intestines, in comparison with the lungs or brain; and in these, as compared with the bones or ligamentous structure. Inflammation of the small intestines may prove fatal in 48 hours; but we seldom find inflammation of the lungs terminating so rapidly. Inflammation of the large intestines does not kill so quickly, as of the small ones; and the brain will at times bear inflammation for a much longer period, and yet the patient recover perfectly; as we observe in long protracted fevers. Inflammation of the bones and ligamentous structure may exist for months, without terminating fatally, or without materially changing the structure of the part. In practice, all these peculiarities have an important bearing. We treat the disease more or less actively, according as its tendency is to proceed rapidly or otherwise.

Inflammation proceeds, *cæteris paribus*, more rapidly near to the heart, or centre of the body, than in the extremities. A phlegmon occurring in the extremities will be much longer in suppurating, than if seated on the trunk of the body.

In young subjects, inflammation is more active, and hence more rapid in its course, than in old ones. Inflammation of the brain, in children, will often terminate fatally in 48 hours, or will have done such mischief to the parts, that it will afterwards destroy the patient. This is the reason why it has been said, that children are not subject to idiopathic fever. The fact is, the disease in them is much more rapid in its progress, and either proves fatal, or ends in serous accumulation, long before the ordinary course of fever, as it occurs in adults, is run through.

You will always find that, when symptoms of fever arise, the disease approaches more or less to the characters, either of hydrocephalus or of ordinary fever, according to the age of the patient. From what is now said, you will see the propriety of paying the earliest possible attention to inflammation, when it occurs in infants, and of treating it in the most active way.

Inflammation, when once excited, often goes on independent of its cause; as when arising from *cold*, *contagion*, and many others. Sometimes, the presence of the cause keeps up the inflammation; as in the case of *ophthalmia*, which may be continued by the presence of some irritating substance, as an inverted eyelash, or a foreign body. Hence you see the necessity of inquiring into the cause of the disease.

Terminations of Inflammation.

Inflammation may terminate in various ways; in some of which, the part returns to its natural state, or at least is so little changed in structure, as to be still capable of carrying on its functions; in others, the structure is materially altered, and sometimes altogether destroyed. These will require to be separately noticed.

1. Of the termination of inflammation by what is called *resolution*. This is an improper term, founded in an erroneous theory of the disease, namely, *obstruction*, which is now pretty generally abandoned, as I before observed to you. It means merely, that the inflammation, after a time, subsides of itself, or is removed by art, without any lasting injury to the structure of the part, or any permanent disurbance of its functions. This takes place in a great number of instances, even spontaneously, and may likewise be produced by artificial means. In neither case, however, is it absolutely certain. There are many cases of inflammation which will destroy life, whatever means are employed for its relief.

2. By increased *natural discharges*, constituting the *profluvia* (or increased discharges) of authors. When inflammation attacks the mucous membranes or other secreting organs, this is the natural mode of termination; as examples of this may be mentioned, *catarrh*, *diarrhœa*, *dysentery*, *diabetes*, *gleet*, and *ptyalism*. The

increased discharge in these cases has, by many, been considered as the disease, as indeed the names imply; whereas it is only the effect. At the commencement of the inflammation, especially if violent, the increased secretion does not take place. This mode of termination of inflammation depends upon the nature of the part affected. If the part be not a secreting one, then the disease terminates in other ways.

3. A third mode of termination is by serous accumulation, or what is less properly termed *effusion* into cavities and interstices, giving rise to *dropsies*, both circumscribed and diffused: *hydrocephalus*, *hydrothorax*, *ascites*, *hydrocele*, and *anasarca*, are all examples of this mode of termination. In by far the greater number of cases, dropsy is a mere effect of inflammation, which frequently continues along with the dropsy, and then calls for antiphlogistic treatment. It is the serous membranes only that are affected in this way.

4. *By adhesion of surfaces.* This termination likewise is confined to the serous membranes; it does not take place in mucous membranes; indeed if it did, it would necessarily prove fatal, by obliterating the canals or passages of the body. The surfaces in contact unite with each other, either simply, or by the intermedium of coagulable lymph. We have examples of this in the *pleura* and *peritoneum*; by which the cavities of the thorax and abdomen are frequently obliterated. When inflammation of the cellular membrane terminates in this way, as it often does, it produces induration, sometimes (though improperly) called *schirrus*. After the inflammation has subsided, the induration sometimes gradually disappears again, the part recovering its natural softness and flexibility, at other times, it remains for a longer or shorter time, or even for life. While such a state remains, it is hardly possible that the functions of the part should be perfectly performed as in health. This enables us to understand the continuance of mental derangement, after the brain has suffered considerable inflammation; or, in other words, the conversion of *phrenitis* into *mania* or permanent insanity. That is, the inflammation has gone off, but its effects,—the altered structure and other changes in the part,—remain, and that for a longer or shorter period.

5. A fifth mode of termination of inflammation is by *hæmorrhage*. This only takes place, where the part affected is very vascular and tender in its texture. Now the lungs are in this predicament, and consequently we often observe this mode of termination in cases of inflamed lungs. In inflammation of the brain, hæmorrhage from the nose often occurs, and carries off the disease. The uterus is another part from which hæmorrhage frequently takes place under inflammation, and with the same beneficial result. Knowing, therefore, this to be the case, we are not anxious to suppress hæmorrhage from these parts, unless where it goes to a dangerous length. When occurring from a safe part it may be even better to encourage it, as when from the nostrils or rectum. Even hæmorrhage from the lungs is of less importance as to its immediate danger, than is generally supposed.

6. *By metastasis*, or the sudden shifting of inflammation from one part to another. The attempts that have been made to explain this occurrence, are very unsatisfactory. This termination of inflammation is most frequently observed in inflammation of the ligamentous structure, as we see in rheumatism and in gout. In general, the shifting of the inflammation is to another part of similar structure; but sometimes it is to other organs, as the heart, or lungs, or brain; and this it is which gives to rheumatism its danger. The skin also is a part which when inflamed often affects other parts by *metastasis*; in this case the inflammation is most likely to affect the brain.

In all the modes of the termination of inflammation which I have now enumerated, the structure of the part is not materially altered. It is true, that adhesion may be said to be a præternatural state, but it is one of little moment, in general; as it does not much interfere with the functions of the part. Thus adhesion of the lungs to the pleura, is frequently discovered after death, the existence of which was not suspected. Extensive adhesions in the abdomen, must, however, be attended with serious inconvenience, as the intestines require considerable freedom of motion, to enable them to perform their functions properly.

In my next lecture, I shall speak of those terminations of inflammation in which the structure of the part is altered, or altogether destroyed, namely, suppuration and gangrene.

LONDON MEDICAL SOCIETY.

THE Anniversary Meeting of the Members of this Society was held on Wednesday last, at the London Coffee-house, when the following ORATION on the Study of the Human Mind was delivered by Dr. HASLAM.

MR. PRESIDENT AND GENTLEMEN—Of the achievements of mind, we possess abundant memorials; in manuscripts, and in the volumes that have issued from the press—in the fabrications of the artizan, and in the curious collections of ancient and of modern art. Since the era of Hippocrates, we have accumulated an immense mass of learned documents, illustrating the structure, natural actions, and disorders of the human frame: yet our researches have been comparatively scanty, concerning the source from whence these productions have emanated, although the phenomena of intellect are particularly displayed to the medical practitioner through the range of human existence, from the birth of the infant to the extinction of life in advanced age. It is true that we abound in treatises and elementary works on metaphysical subjects; but these rather exhibit scholastic subtilties than the proper desideratum, which is the physiology of intelligent beings.

From the manner in which the nature of the human mind has been considered, by the fatal introduction of the term *metaphysic*, many intelligent persons have been deterred from its investigation, and the medical practitioner, accustomed to observe nature in all her presentations and changes, when he found that the phenomena of intellect denoted something *beyond* nature—a science presumed to be of a higher order, ascending into mystery—subdivided into imaginary constituents, and inveloped in terms that conveyed a doubtful meaning, he prudently abandoned its prosecution, and, without the struggle of contention, resigned it to the philosophers. With these gentlemen it has remained, but with little advancement. Systems, manifold and discordant, have been compiled; in many instances calculated to display the learning, and in others the fancy of their contrivers: and some of these edifices, like certain structures of modern erection, have not endured through the life of the builder. Sometimes these metaphysics have been converted into weapons, and have served to lunge and parry in *colloquial discussions*, and at others, have constituted the heavy artillery in ecclesiastical polemics. To enumerate the hypotheses that have been framed to account for the phenomena of mind or intelligence, the abstract principles assumed, or the laws that have been arbitrarily imposed, would be a waste of your valuable time. The clear and strong light of common sense cannot penetrate the obscurity in which this boasted metaphysic is inveloped. These philosophers have worked in the dark; like unskilful miners, they have excavated a deep and intricate cavern, and toiling in this stagnant and corrupted atmosphere, have often been compelled to retire from the dread of suffocation; and when the lamp of science has been introduced into this mephitic vault, it has been instantly extinguished.

According to my own views of this subject, the phenomena of intelligence may be observed and comprehended, as they are progressively acquired, from the period of infancy, to mature age:—and as a general position, it is evident that the mind of every individual must consist of that knowledge which has been imported by the different senses, and by its own reflections, or subsequent elaboration of this important knowledge: it is, therefore, a consoling deduction, an inference that awakens honourable ambition, that every individual is the architect of his own mind,—a superstructure that is reared on the basis of his intellectual capacities. This renders him the creature of progressive instruction, in opposition to the preconcerted movements of instinct, and thereby constitutes him a being responsible for his actions.

One of the most important and striking distinctions in the history of *man*, compared with other animals, is the long period that elapses in the seasons of his infancy, childhood and adolescence. Many animals have not only completed their maturity, but have become grand parents beyond the tenth generation, before a human being can be legally responsible for the acts of his volition:—and that many animals possess the organs of sense in a higher state of perfection than man is generally acknowledged. The first developments of acquired intelligence are from the smell and taste, by which the nutriment of the mother is distinguished, although these senses appear afterwards to diminish in importance.—The ear is next enabled to discriminate certain tones of the voice, that soothe or discourage, and even to receive some whisperings of

meaning, before the eye can be steadily directed to objects, or ascertain their distance.

The acquirements of the sense of touch are more tardily unfolded and difficult to observe, as they are at the commencement obscurely conducted and perhaps confined to the delight conveyed by the warmth and smoothness of the mother's breast; however, the infant, by degrees, begins to exercise the fingers on all the objects that it can seize, and these, when grasped, equally engage the attention of the eye, which thus gradually improves its focal admeasurement; and this reciprocal education of the eye and hand contributes, by cultivation and long exercise, to the perfection of the higher arts of painting and sculpture, and of those skilful fabrications and elegant manufactures for which our own nation is so eminently distinguished. Let it also be considered, that by these feeble and incipient efforts, voluntary motion is acquired and attention produced; for attention, from its momentary fixation to its enduring pause, must be considered an act of the will. At a very early period it may be observed, that whatever the hand grasps is pertinaceously retained, and that to wrest from an infant of six months the toy or bauble that it holds would excite its most angry feelings and attendant tears. This early desire of possession, and obstinate resistance to its surrender, form a strongly-marked feature in the human character. This lust of appropriation is never extinguished; when inordinate, it constitutes theft and rapine for the acquirement, and the sordid practice of *hoarding*, with its consequent denial of all the decent comforts and gratifications of life for its retention; and as we advance in age, at which season our moral sensibilities become blunted, the passion of avarice augments,

" Like our shadows,
Our wishes lengthen as our sun declines,"

and the milder charities of our nature recede before that flagrant cupidity which the Roman poet has happily termed the " amor sceleratus habendi."

Man, furnished with the organs of sense, very gradually acquires a knowledge of the objects in nature, but this knowledge implies a recollection of such objects. That which we perceive by the organs of sense, are properly denominated *perceptions*, and these are to be considered as the foundations on which the superstructure of the human mind is erected. It must, however, be understood, that *perception*, in order to contribute to the formation of mind, implies the memory of that which the organs of sense have conveyed or imported, for without such preservation, constant repetition would become a series of novelties, and the oldest inhabitant of the earth would have merely experienced a single glimpse of creation; and when we admit an accurate memory of all the objects that have been presented to our senses, the human mind, in *that* stage of its progress, can only boast of being a fasciculus of recollected perceptions, and in these we are evidently surpassed by many animals that we have been accustomed to term of a lower order.

The noblest acquirement of man, and by which he is proudly distinguished from all animated beings, is language, or the conveyance of intelligence by articulate sounds; whereby he communicates, to those similarly instructed, that which he has reaped from the experience of the *past*, the existences of the *present*, and the probabilities of the future. This medium by convention mutually conveys to the ear all the perceptions that have been experienced by the different organs of sense, and the reflections which different minds have elaborated. The imposition of a name, whereby the perception may be revived and identified, is the second stage of intellectual attainment; and this fact, kept steadily in view, will afterwards expound the convenient abbreviations of speech, and unravel the complex and apparently mysterious construction of a sentence; for we are little aware that we acquire language before we are capable of reflection, and at the season of maturity, feel little inclination to investigate the tedious process of its acquirement.

These επεα πτεροεντα unfold to the child the elements of its future knowledge and conduct; at the season of sexual development, they impart in whispers the kindred feelings of sentiment and passion; to the vigour of manhood they recount the noble deeds which a nation has performed in defence of its liberties, the sacred cause for which Hampden died in the field and Sydney bled on the scaffold, and thus excite patriotism and impel to military glory. These winged words, by the charm of a gentler eloquence, when delivered from the *altar*, persuade us to religious observances, and the exercise of virtue, and

" When old experience doth attain
To something like prophetic strain,"

they flow from the lips of the grandsire in prudential aphorisms, and in lessons of practical wisdom. Such is the nature of language, the vehicle of intelligible communication between human beings, that, by mutual subaudition, a sound conveys

a distinct knowledge of the objects in nature, characterises their motions and changes, and imparts the operations and internal feelings of the mind itself.

Great as may be the advantages of significant sounds for reciprocal intelligence, it must be recollected that these tones are entombed in the organ that receives them:

"——— Like the electric fire,
But strike the sense, and as they strike, expire."

Even with this towering superiority over the rest of creation, man is but in the infancy of his intellectual career, little more than the being of his own day; and for the survival of his mental acquirements, is indebted to the fragments, that the recollection of his contemporaries may embalm, or tradition hand down to his successors. Even these feeble reminiscences very shortly perish, and the tide of succeeding events overwhelms and disperses the floating remnants of the wreck.

To supply these defects, to commemorate events, and give a permanence to thought, the ingenuity of man contrived, at an early period of his history, to frame an enduring record of those sounds by which we reciprocally convey and receive intelligence; and this consists in the formation of characters or symbols which represent these significant sounds. As speech is impressed on the organ of hearing, these characters of articulate sounds are addressed to the eye, which thereby receives the same intelligence with the ear, and becomes capable, by a knowledge of the character, of conveying the identical sounds to the ears of others, or of transmitting by written signs the same knowledge to the remotest regions. By the preservation of these significant symbols, which survive the extinction of mighty empires, the living become the associates of departed genius, and after the lapse of centuries, imbibe the pure spirit that animated the poets, historians, and philosophers of the Grecian and the Roman schools. Written character introduces the transactions of former ages, clothed with the freshness of the passing scene; it is the true telescope that approximates distant occurrences, and exhibits the past within the focus of the present. Thus the members of the medical profession may now obtain the counsel of Hippocrates and Celsus with the same facility as from their own contemporaries.

The capability of transmitting to posterity the accumulations of mind has brought us acquainted with those who have preceded us, and thus unfolded the history of our species. These treasures constitute the various libraries in existence, and the certainty that the meritorious labours of our intellect will be preserved is the incentive to exertion, to patient toil, and the endurance of privation, to possess the lasting fame which a grateful nation awards to genius and to learning.

There is another science, the acquirement of which is indispensably necessary to the constitution and perfect display of the human intellect, which is the comprehension of numbers; and the importance of this science, on an occasion so limited as the present, will be most readily exemplified, by supposing a community altogether ignorant of numerical powers. A people so destitute, although they possessed the sensitive organs in exquisite perfection, with retentive memory, the use of language and its record, in all the copiousness and splendour of diction, would be incapable of accuracy and precision. Without number there could be no estimate of property, nor any metallic representative of value, which implies weight, and consists of various aggregates of definite constituent parts, and in such a state of society there could be no admeasurements of time or space. The incurvated body, the hoary head, and tottering gait, all indicate old age, but afford no distinct notation of time; and events the most splendid or disastrous, without the register of numbers, become fused into cohering and undistinguishable transactions. Space, uncharacterised by latitude and longitude, is a prodigious and undefined extension, not to be explored by the navigator, whose efficient instruments, like all others for philosophical purposes, are constructed on the unerring doctrine of figures; and all those graduations that mark the apparatus of science would render them useless toys to those unacquainted with numbers. As practitioners of medicine, we should be little adapted to the discharge of our professional duties, without the knowledge of numbers. The pulsations of the heart could not be counted, nor any definite time apportioned to measure their velocity. In intermitting diseases, the periods of remission could not be ascertained, and the physician would be unable to prescribe; for there would be no weights to limit his doses, nor could he direct them to be taken at stated intervals. When we are deficient of the means of ascertaining the gradations of admeasurement, we are compelled to resort to those general expressions which still remain in our language as the monuments of a ruder period, and which by grammarians are termed degrees of com-

parison, describing augmentation of quantity by *much*, *more*, and *most*, and its diminution by *little*, *less*, and *least*, or by abbreviations of similar import; and these three degrees of comparison, which may be annexed to every adjective, are all the precision that language, unassisted by numbers, can attain.

In a supposed community where numbers are unknown, speech might acquire its graces and decorations; sentiment might sparkle in brilliant metaphor; pity pour forth her plaintive tones, and terror become arrayed in sounding superlatives; —the exuberant fancy of the romancer might weave the alluring tissues of ecstatic joys and overwhelming sorrows; even orators might swarm;—but in the vast population of such a community there would not be found a single natural philosopher, a chemist, or a physician.

It may be inferred, that the intellectual edifice of man is now constructed:—that by his sensitive organs he is able to observe acutely and justly the phenomena of nature:—that he possesses the vehicle for communicating to others that which has been, or is the object of his notice, by sound and visible characters:—and that he can numerate and employ these symbols for the purposes of accurate accumulation or diminution. With these mental acquirements many ordinary persons are contented, and obediently perform the duties of life by the direction of others. Many of the employments and situations of responsibility are discharged by a strict conformity to rule, or by a blind adherence to prevailing fashion:—these are the slaves of transmitted opinions; and, in all the departments of human affairs, such men constitute the majority:—a large portion of mankind is trained by reiterated inculcations to believe in many points, and even systems, that have never been demonstrated, and continue to act from such dicta to the end of their existence. With persons of this description, conversation is the mere recital of occurrences or a vague detail of feelings, and their conduct or practice a series of established habits.

The intellectual character of our species is not yet completed:—there remains to be noticed the highest attribute of *mind*, which is thought or reflection,—the faculty that leads to discovery, and enlarges the boundaries of science.—Thought is the mental elaboration of knowledge,—the energy by which the intellect contemplates its acquirements—it is the spirit that impregnates a subject, and after long and patient brooding, propels into existence the hopeful offspring, that excites the admiration of immediate beholders, and the wonder of succeeding ages:—it is the creative vigour that animated the brain of Homer, Euclid, Shakspeare, of Newton, of Watt, and of Byron.

As a constituent of the human mind there is another acquirement, which has been the subject of much unnecessary dispute, *volition*, the physiology of which is of great importance. Some of the most striking of the vital functions are maintained independently of its influence, and have therefore been termed the involuntary motions, which, to all appearance, continue to act instinctively through life. At the period of birth the infant seems to possess no power of directing its organs of sense or motion, and the exhaustion of its mouth to receive the maternal nutriment is as well explained by supposing it instinctive as acquired: indeed when we observe the slow progress of voluntary exertion in the infant, particularly over those sphincters that are inservient to cleanliness and decorum, there can be no reason to suppose a movement so complex to be an instantaneous acquirement. By degrees nearly imperceptible all the organs of sense are directed to the objects that severally excite them; but at the commencement, as might be presumed, these perceptions are stimulated by the presence of the objects themselves, and not produced by any voluntary direction, the acquirement of which is the result of repeated application and effort. The memory is subjected to the same law; we begin by consecutive recollections, and tardily proceed to the memory of systematic arrangements; and this faculty may be considered in its most perfect state when it can be summoned to deliver its stores at the will of the possessor. Of ordinary minds, the memory consists, for the most part, of *excited recollections*, and the character of this faculty in animals seems to be wholly of this nature. Study, in its proper sense, is the fixation and endurance of the attention to any particular subject, and this attention, as has been before observed, is a voluntary act, acquired by repeated and even painful exertions. If we attentively watch the proceedings of our own minds, even under the endeavour to pursue a subject of delighting investigation, we become shortly aware that we are interrupted by external circumstances distracting the attention, or by the intrusion of reveries, entirely irrelevant to the direct object of our meditations, which frequently engage us so earnestly, that the original subject escapes beyond the power of immediate recovery. Since, by a candid confession, these intrusions to

a greater or less degree are common to all minds, we must consider the control or voluntary power which the intellect can exercise over its thoughts, so as to confine and direct them, to be the highest effort of human perseverance and attainment. It is this concentration of mind and promptitude of thought—this undiverted pursuit of the desired object, that persuades in council, rallies in debate, averts impending disaster, and, in the moment of perilous conflict, turns the balance to victory. The nature of volition, in a medical point of view, is of the greatest importance, nor is it less interesting in a moral aspect, for the just consideration of this subject will tend to throw additional light on tremor, paralysis, chorea, tetanus, and other morbid affections of the same class; it will explain the states of sleep, dreaming, and somnambulism, and conduct us to the proper investigation of those affections of the intellectual part of our nature, that render man incompetent to exercise his volition, or disqualify him for the management of himself and his affairs; for it is evident that man, as a responsible agent, is equally involved by the determinations of his will, in committing such actions as he ought to avoid, and in leaving undone that which it is his duty to perform. In the successful prosecution of this subject, we may expect a nicer discrimination between crime and insanity than has been hitherto established, and anticipate the explosion of that baneful doctrine of the mind's unsoundness, the mischievous contrivance of forensic subtilty, the refuge of ignorance and the tool of fraud—the blazon of materialism, an insult to common sense and a libel on the Christian religion.

It may now be presumed that we have collected the materials, and concisely described the circumstances that progressively contribute to the formation of the human mind, as far as its intellectual capacities and attainments require to be enumerated; but pure and unalloyed intellect does not constitute man, for we arrive at intelligence only through the medium of vitality; in our own species we view them uniformly conjoined, and are furnished with no opportunities, in our present condition, of observing their separate existence. Such abstraction may, perhaps, be the state of celestial beings, where the mind, depurated from the grossness of its present incumbrance, is sublimed into ætherial regions, and where, with ampler capacities, it adjusts the prime equivalents of bodies, unspheres the spirit of Plato, and, with the facility of a pastime, solves all the problems of the transcendental philosophy.

In considering this subject, it is of the highest consequence, and the only means that can lead to the discovery of truth, to view man as nature presents him to our observation,—to note the actual state of the infant at its birth, the progressive unfolding and accretion of the animal structure, and the gradual developments that mark his procedure to maturity. By a physiologist, the mind can only be considered in conjunction with its animated bodily fabric, for, when those active and harmonious concurrences that exhibit the vital phenomena cease, all the manifestations of mind are equally extinguished.

Let it also be understood, that in addition to his most perfect mental capacities, and to their highest cultivation, man is likewise a compound of emotions—of desires and aversions—of hopes and fears—all of which have been included under the general name of passions, and are the concomitants of his earliest existence. By the various operations of these, his moral nature is exalted or debased, and his intellect advanced or retarded; and it may be indicated, although not fully developed in a limited composition like the present, that these passions originate, to a considerable extent, from the structure and natural actions of our corporeal frame, and the establishment of this result will demonstrate a more intimate connexion between physiology and ethics than has been hitherto suspected; indeed there appears no other source from whence they can be derived, for the character of perfect mind, such as we attribute to the divinity, must involve the total absence of such associates; our own nature becomes improved in proportion as we have learned to subdue them, and many of these passions are strongly depicted by the lower animals.

The influence which the different periods of life exert on human character, by the development or extinction of certain desires, feelings, and emotions, is well understood, and proves that man is not an uniform being with standard propensities, but a creature varying according to the expansion, tone, and decline of organs destined for the maintenance of life and for the continuance of his species.

From the conjunction of the intellectual capacities with our corporeal system there has necessarily resulted a reciprocal influence and mutual affection, and the intimate knowledge of these sympathies constitutes a volume of valuable pathology; but this union has unfortunately induced some medical philosophers

to consider them, not only as distinct co-existences, but to form conclusions concerning their separate and intrinsic nature. Hence have arisen those violent and endless disputes, where conjecture has been substituted for fact, and reproach for argument, to establish doctrines beyond the scope of our limited faculties. One sect maintains that life and intellect are the necessary consequences of a peculiar organization; the other asserts a principle of vitality, and contends that the mental phenomena are produced by an addition or incorporation of spirit with the living mass. The former does not pretend to explain how mere organization can produce life and mind, or to define the nature of the organization that is fitted to produce them; the latter gratuitously suspects life to be some modified elaboration of electricity, magnetism, or galvanic influence, but how modified he does not affect to unfold; and with respect to *mind*, we cannot conceive the possibility of an *union* of that which is *not* matter to that which is—an amalgamation of the shadow with the substance: the very terms *union* and *addition* imply that some *thing* is attributed, and not the negative of *something*, which is incomprehensible. By the faculties we possess we are enabled to observe the phenomena of life, and the progressive developments of intellect; but to pretend to an intimate acquaintance with the arcana of vitality, or the nature of the *capacities* on which the mind is built up,—is equivalent to the assumption, that these philosophers had personally assisted in the great work of creation. These gentlemen have actually limited the Omnipotent in his plastic operations to two fanciful contrivances, neither of which, by their utmost extension, are capable of *throwing even a ray* of light on this subject. But the authors of organization have experienced more serious inconveniences than ought to have attached to failure; they have been subjected to the denunciations of ignorant and gloomy fanatics,—hired champions, and stipendiary advocates, who have stigmatized them with *materialism*; and, wanting the christian charity they outwardly professed, have defamed their moral reputation; because they had been guilty of an hypothesis; yet the same calumniators have profusely lauded the equally mistaken adherents to the modifications of magnetism, electricity and spirit, as the components of life and intellect,—a doctrine manifestly *more* material than that of their opponents. It is to be hoped that these altercations, from their insufficiency to expound the nature of life and the operations of intellect, will cease to generate hostility. There are no researches, strictly physiological, that can impugn the doctrines of our religious faith, they are of a character altogether different, and cannot be legitimately blended. The investigation of nature, and the extension of the boundaries of science, beyond any other employments of the human mind, tend to increase our admiration of the Deity, and excite a holy tribute to his infinite wisdom; an oblation that superstition cannot perform, nor ignorance comprehend.

The means which we possess of obtaining a knowledge of the human intellect are, the observation of its progressive acquirements in others, and the patient dicipline of our own minds; by fixing the attention to the objects of our perceptions, that we may become thoroughly acquainted with them, and by confining our thoughts to the immediate subject of their investigation. The *intimate nature* of the capacities on which the mind is progressively built up, is an inscrutable problem: to *some*, we know and feel, that in the extent and temper of these capacities nature has been more bountiful than to others: they may be considered a divine endowment; in the abstract they are not the subjects of our cognizance, we know them only by their acquirements, which enable us to appreciate their range and comprehension. To the honor and dignity of our species let it be remembered, that whenever these capacities have been exalted, their possessor has manifested his superiority notwithstanding the impediments to its disclosure; however humble in rank, or depressed by circumstances, the vigour of these capacities has burst through the obstructions that seemed to restrain their evolution; and, even when thwarted by power or screwed by persecution, have expanded in the ratio of their compression.

When the capacity by which we acquire knowledge is termed a *divine endowment*, it is not pretended that such epithet conveys any solution of its nature; but merely to confess a thorough ignorance of its intrinsic quality and constitution; and to prevent future physiologists from indulging in speculations beyond the reach of our limited powers. The same term of *divine* endowment I affix to the constituted motions of the heavenly bodies, that celestial mechanism which La Place has so profoundly examined and perspicuously explained; to the vital principle that pervades a seed, and likewise to that established tendency which the particles of certain bodies have to unite with others, and which by chemists has been termed their elective attractions.

Every endeavour to scrutinize into the abstract nature of that capacity by which as living existences we acquire knowledge, all our researches into the immediate constitution of life, or into those intimate arrangements of matter by which its peculiar properties are exhibited, is a lavishment of that valuable time which might be advantageously occupied on subjects within the sphere of our comprehension.

For the fair and hopeful employment of talent a fertile district invites our cultivation, and the abundant facilities which the experimental science of our own times affords for the investigation of nature will doubtless conduct some patient inquirer to the discovery of those offices which the nerves, with their numerous ganglia, are destined to perform, and assign to the brain its peculiar functions. The same spirit of philosophical research will likewise examine, and strictly define, the terms by which the operations of the intellect ought to be described, and remove that learned lumber which has encumbered the science of pneumatology, which ought simply to be regarded as the physiology of the human mind.

In this respectful address, it has been my humble endeavour to point out the capacities of intelligence, the circumstances which contribute to the formation of the human mind, and also to trace its progressive construction. The investigation may be pursued for ages, but I will venture to predict, that for the augmentation of our knowledge on the subject of intellect, we shall be indebted to some member of our own profession; and it here affords me great pleasure to announce, that lectures, of a very superior character, on the morbid affections of the human mind, are actually delivering in this metropolis by my learned and amiable friend Dr. Morrison.

The superior medical education that prevails in the present day—the rivalry of teachers, each anxious to display the extent of his researches, and to distribute the treasures of his experience—the distrust of mere analogical reasoning—the wholesome suspicion of imposing names, and of doctrines sanctioned only by usurped authority, but above all, the exercise of original thought, and the workings of that free spirit which feels and maintains that the republic of knowledge enlarges its dominions, and defends itself in the open field of fair competition, and does not require, like a tottering monopoly, to be intrenched in privileges and fortified by charter. On the confluence and operation of these causes I found my hopes of the advancement of the healing art in all its branches, and it is presumed that the elders of our profession will not feel contented with the sum of information acquired in their youth, and view the remainder of their medical career as a lucrative pastime, but endeavour to attain the standard of modern improvement, and consider themselves as students while they continue to receive the emoluments of practice.

Animated by these hopes, I shall conclude in the words of our immortal Bard,—

" ———— the charm dissolves apace,
And as the morning steals upon the night,
Melting the darkness, so their rising senses
Begin to chase the ignorant fumes that mantle
Their clearer reason."

[This Oration was received with reiterated shouts of applause.]

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

ARCHIVES GENERALES DE MEDICINE.

On Aliment, by Dr. C. Londe.

The food which is taken into the body of man never contains less than three elementary substances,—carbon, hydrogen, and oxygen. Many experiments of M. Magendie have a tendency to prove that a fourth element is necessary to nutrition; for substances which contain no azote, if I interpret this physiologist aright, although susceptible of complete digestion, furnish chyle of too watery a nature to nourish the frame. M. Magendie's experiments were made on dogs, which are known to live very well on the same articles as man; his conclusions were, therefore, fairly enough, by analogy, transferred to the human kind. But let us pause upon the opinions of this physiologist.

In the first place, M. Magendie denies all the facts usually cited to prove that non-azotised substances are nutritious.—These facts are the histories of the caravans, which, in the desert, live on gum alone, and of the negroes, who live and even fatten on sugar. These facts are

fairly enough refused as conclusive, because neither the gum nor the sugar was in a state of purity: they contained azote. M. Magendie then contends, that the nations, which are said to live on maize, rice, potatoes, or other non-azotised matters, never eat them without the addition of milk or cheese, substances which are known to contain azote. Such observations as these, then, prove nothing against M. Magendie; but do the experiments of this physiologist prove that non-azotised substances afford no nourishment? This is the point which requires examination.

The first dog which was put upon white sugar and pure water, lives in good health for eight days, is even lively and *dispos*, (sexually inclined we presume,) he begins to grow thin during the second week, is afterwards attacked with ulcerations of the cornea, loses the humours of the eye, and expires exhausted on the thirty-second day of the experiment.

Two similar experiments give the same results; and these results are farther confirmed by experiments made with other non-azotised bodies, as olive oil and distilled water, gum and butter; all the animals expired about the thirty-sixth day. Sugar and butter are the only substances that determine ulceration of the cornea.

Were M. Magendie's experiments confined to those we have just cited, it might be inferred, not that non-azotised substances do not nourish, but only that non-azotised matters, given singly, (which is very different from giving three or four of them mixed together,) do not nourish. This would be the proper inference; but now we have additional experiments by the same gentleman, showing certain azotised substances acting, when taken singly in the same manner, precisely, as non-azotised substances.

I.—*A dog fed on fine white bread and water, both at discretion, does not live beyond the fiftieth day.*

Nevertheless white bread is an aliment that contains azote.

II.—*A dog fed on the coarse bread of the military lives, and keeps his health.*

Now, in regard to composition, it seems to me that coarse bread may be considered in the same light as white bread, i. e. as bread containing azote, with the addition of some non-azotised grain, such as barley, &c. Were the question of white unraised bread, the case would be different, for this latter sort of bread actually contains more azote than the former. Here then, it is the mixture only of several substances that can act favourably.

III.—*A Rabbit or Guinea Pig fed on one or other of the following substances, wheat, oats, barley, cabbage, carrots, &c. dies, with all the symptoms of inanition, commonly within the first fortnight, and sometimes much sooner. Fed with the same materials given in rotation, and at short intervals, the animals remain in perfect health.*

It is the mixture therefore, in this case, which is salutary, seeing that those among the substances named, which contain azote, prove fatal, like the rest, when taken alone.

IV.—*An Ass fed with rice boiled in water, (he having refused the raw grain,) does not survive above a fortnight; a Fowl, however, lives in health for several months upon boiled rice.*

Here then is a non-azotised substance which preserves the life of one animal, and proves fatal to another. All that can be inferred from the experiment, therefore, is, that a mixture of alimentary matters is more indispensable to the organs of the first than of the second of these animals; certainly no conclusion, either for or against the nutritive powers of non-azotised substances, can be drawn.

V.—*Dogs fed exclusively on cheese, and others on hard eggs, become weak, lean, lose their hair, &c.;*

And, notwithstanding, these are azotised kinds of food. The simplicity in the alimentation, therefore, again appears to be the unfavourable circumstance; the proof of this lies in the fact that either of the above substances proves nutritious when combined with white bread, which, by itself, we are informed, does not support the life of a dog beyond fifty days.

From all I have said, then, I conclude, 1st. That M. Magendie's experiments afford no ground for laying it down as a principle, that non-azotised aliments are more incapable of nourishing the animal body than azotised aliments.

2ly. That weakness, emaciation, and death, follow the use of azotised as of non-azotised substances, when a single aliment of either description, is taken alone for a certain length of time.

3ly. That life would, however, appear to be preserved some days longer upon azotised, than upon non-azotised substances, taken singly.

4ly. That life and strength are preserved upon non-azotised as on azotised substances, when different alimentary matters, of either description, are taken together or in succession.

sly. That in certain cases a single alimentary substance of the non-azotised class has supported life and preserved the health intact.

What then must M. Magendie's conclusion be? Endowed with a mind too precise not to perceive that it was impossible to deduce, from the facts announced, any general rule, even a single corollary establishing azotised, to the exclusion of non-azotised substances, as alone nutritious, this physiologist is so cautious as to terminate the facts which he quotes with this very general and universally received induction, viz. "that the diversity and multiplicity of alimentary matters is a very important rule in the hygeia, a rule which, indeed, is imparted to us by our instincts, and enforced by the variations which the seasons cause in the nature and species of available food."

But the physiologists who have issued from the school of M. Magendie are far from being so moderate in their conclusions as their master. For instance, Messrs. Lenret and Lassaigne, authors of the *Recherches pour servir a l'Histoire de la Digestion*, not only consider the nnnutritiousness of non-azotised substances as a point demonstrated by M. Magendie, bnt, in addition, advance, that they have had occasion to ascertain the exactness of this position? But what are the proofs which they bring forward in support of their opinion? *They have found*, say they, *non-azotized substances in the excrements and in the urine.* Can this proof avail, if the quantities administered and the quantities contained in the residue have not been ascertained? Certainly not. However, these physiologists appear so convinced of the incapacity of non-azotised substances to furnish any kind of chyle, (M. Magendie is far from entertaining so exclusive an opinion,) that after having found chyle in the lacteals of a score of dogs and cats, which had been fed upon non-azotized substances, they express their astonishment at the circumstance, and tell us that they "*cannot explain the phenomenon, but by supposing the decomposition of part of the mucus secreted into the intestinal canal, and its admixture with the ingesta.*" For my own part, I cannot conceive why these distinguished physiologists can refuse to surrender to such testimony, why the results of their experiments, conclusive as they are, do not induce them to abandon an opinion, which M. Magendie, moreover, has broached with much more reserve than any of the writers who, in citing him, follow in his footsteps.

Many authors, since the days of Hippocrates, have asked, whether there were not a single nutritious principle common to all kinds of food, and which merited, to the exclusion of other principles, the title of *nutriment?* Much discrepancy has subsisted in the ideas entertained of the nature of this principle. Some have held it to be of a mucilaginous, others of an acid nature. I shall not lengthen this article by any inquiry in this direction; and for the simple reason that the absurdity of the supposition of a single nutritious principle may, in my apprehension, be shown in a sentence. The matter of our organs is not composed of a single principle, neither are the losses which this matter undergoes composed of a single principle; therefore, a single nutritions principle is not adequate to the growth or the reparation of our organs. The end of alimentation is the development of our organs and the reparation of their waste; that is to say, the renewal of their composition. To effect this end, food must be taken in such quantities, and endowed with such qualities, as are calculated to carry life to our organs, and to acquire that vitality which these had lost.

Food, in regard to quantity, as in reference to quality, always acts in the first instance upon the digestive tube, and then upon the other organs, in a general, and not in a special manner, as is so commonly believed. The organs only appropriate the nutritious parts of the food in proportions relative to the degree of their vitality, of their development, and to the quantity of exercise they endure, in a word, to the occasions which they have of becoming the seat of a kind of nutritive irritation. Since modern chemistry has been turned to the examination of the products of animality, particularly of the chyle, I do not think that food ought ever to be spoken of as *galactopial*, as *spermatopial*, i. e. as making milk, spermatic fluid, &c.

Alimentary matters, it must be evident, cannot be treated of in these two relations, *quantity* and *quality*, unless in special articles, where each variety should be properly classed. I shall here confine myself to some general ideas on these two points.

If food be taken in moderate quantity, of good quality, and at fitting time, it fulfils the indications exposed above, without its introduction into the digestive organs and circulatory system, causing fatigue, depression, uneasiness, agitation, &c. Far from this, a state of well-being succeeds its ingestion, and the transmutation of the inert substances swallowed, into the matter of our proper bodies, is not otherwise perceivable.

When too much has not been eaten, very great attention indeed is required to perceive that there occurs any increase of frequency or of force beyond what is habitual in the function of respiration, immediately after the introduction of food; that, on the contrary, this function is performed with less frequency and vigour, and with more freedom, and that the skin is hotter, when the alimentary pulp passes from the stomach into the duodenum; and lastly, that we are much less capable of exhibiting cerebral and muscular powers when the food is in the stomach, than when it has passed from this into the intestines.

When too large a quantity of food is taken, that is, when the bounds prescribed by the sensation of plenitude and satiety are overstepped, the stomach compresses the lungs, and renders the respiration laborious. The stomach is now too much engaged, has too much work to do, and the muscles and the brain can no longer act with energy: a feeling of laziness, and very frequently sleep, then follows the repast. If the stomach succeed in freeing itself from this load of food, it is only by calling forth great energies; and notwithstanding all its efforts, it still only transmits an indifferently prepared chyme, which is very apt to irritate the bowels, when copious and little consistent stools follow, and the individual loses flesh in spite of the quantity of food he consumes. This is one of the reasons why we every day observe persons who continue extremely thin, although they eat a great quantity. The stomach and intestines, forced to such excessive exertion, generally finish by being attacked with chronic and disorganizing irritations.

At other times, and especially when the habit of eating to excess has been acquired gradually, the stomach and intestines acquire, by continued exercise, real energy, and a true predominance over the other organs of the system, especially over those of the functions of relation; the senses, the brain, and the muscles lose their activity; these organs seem to lack principles of excitement, which would, indeed, appear to be concentrated in the digestive apparatus; the individual so circumstanced, therefore, having finished his meal, is instantly seized with a general torpor, with an irresistible inclination to sleep, which he often satisfies without leaving the table. The persistance in such a habit, producing a reparation beyond the losses of the economy, brings in its train plethora, and excessive obesity, especially in the abdominal region. This obesity disfigures the body, and buries, so to speak, all those traces of muscularity which compose such a striking feature—such a characteristic beauty in the outline of the male. The slightest bodily exertion becomes a toil, and thought and fancy can no longer spring from a brain that is oppressed and rendered capable but of perceiving a few strong impressions. Need I go on to state, that the plethoric state of these individuals disposes them to be assailed with gout and other phlegmasias, and that the slightest emotion arousing their brain, little accustomed to such causes of excitement, makes them the frequent victims of apoplexy?

If, on the other hand, food be taken in too small a quantity, i. e. in quantity inferior to the demands of the economy, the body is exhausted; it does not, however, become sick until the equilibrium in the weakness of the organs happens to be destroyed by any cause of excitation whatever. One of my patients, Madame R——, was, during my absence, confided to the care of M. F., who, for a gastritis, real or supposed, kept her forty-seven days on pure water. The patient suffered nothing, made no complaint. On my return to Paris, I prescribed food, with every precaution which the delicacy of the patient's state rendered necessary; she expressed distrust in the plan, nevertheless she digested all she took perfectly well; but some supposed motives for jealousy had excited her brain during the period of severe abstinence; insanity appeared; every means which the condition of the patient warranted were employed in vain against the destructive fire which had been kindled in her brain, and Madame R——, although in a state of extreme weakness and emaciation, still fell a victim to the sole violence of the cerebral irritation.

The effect of insufficient alimentation is not, as is said in some books on the hygeia, to exalt the action of the brain more than that of any other organ. When great cerebral excitement, amounting even to delirium, is observed during a course of penance and fasting, this delirium is less a consequence of the abstinence, than of the exercise of the brain, which, during such superstitious practices, is carried to the extreme of intensity, and continued without interruption.

There are cases, however, in which the brain may be irritated and inflamed, in consequence of undue abstinence. But this event never happens, except when the stomach is itself attacked with inflammation through the want of food, or when hunger in the extreme is endured, and causes dreadful sufferings. Although the

pain be then referred to the stomach, it is not, on this account, the less certain that the brain is the part which perceives it; and it is precisely because the brain perceives this painful impression for a longer or shorter time, and because the perception is painful and distressing to a greater or less degree, that it ends by being attacked with inflammation. This is the history of all perceptions; this, to say it *en passant*, is the history of the blister to the leg or thigh, of the sinapisms to the feet, by means of which certain practitioners hope to transport irritations from the brain, whilst they, in fact, actually augment the irritation, by forcing upon the brain a new and painful impression. Much suffering would be spared to mankind, were the effects of all the painful therapeutic means in use to be rigidly discussed: but I return to my subject.

The conclusion which ought to be formed, from what has gone before, relatively to the proper quantity of food, is, in a general way, that it should be proportionate to the waste of the organs, to the energy of the stomach, and, above all, to the feeling of want; because, in a state of health, it is the stomach which takes upon itself the task of *speaking* for the other organs, which are suffering from scarcity of reparative matter; and it does not *complain* because it is empty, as has sometimes been said, but because an admirable sympathetic connexion associates it, if I may say so, with the uneasy feelings of other parts, makes it to suffer through the mere wants of other organs.

Relatively to their quality, alimentary substances ought to be studied in several separate chapters; they may, however, be made the subject of some general ideas. These ideas spring out of, and are the consequences of positive facts, of cases which we have observed, as well in the human kind as among animals. Several individuals, affected with preternatural anus, were the subjects in the one, carnivorous animals those in the second instance. The last and most interesting of the patients on whom my observations were made, was Madame L——, rue des Barres, No. 24. I believe that she is still convalescent at the Hôtel Dieu.

After a violent effort, a tumour, accompanied with vomiting, made its appearance in this female's right groin; many fruitless attempts at reduction were made by her surgeon; the skin, cellular tissue, and hernial parts, were all attacked with inflammation; pus formed, and was on the point of making its way through the skin, when I was called (Oct. 25, 1825, eight days after the accident.) It was not difficult to conclude from preceding circumstances that the symptoms were owing to a hernia. M. Sanson, who accompanied me to the patient's house, instantly made an opening in the most depending part of the tumour; a large quantity of pus escaped, mingled, as had been foreseen, with traces of alimentary matter. The tumour was completely emptied. The patient, on the morrow, continued free from fever; there was no symptom of peritonitis; the food that was taken passed through the wound. I immediately began to repeat the experiments which M. Lallemand, of Montpellier, had made on individuals affected with preternatural anus. The patient was tractable; I prescribed whatever I chose, without, however, forgetting for an instant, that the rights of humanity were to be preferred to the interests of science; every thing was done openly, and without objections made. My observations were continued during three weeks, at the end of which period M. Sanson freed the patient of her disgusting infirmity.

All that I have seen in patients affected with preternatural anus is in harmony with the deductions from parallel observations which M. Lallemand has published in his thesis. I mean not to enter into the detail of the experiments, but I shall cite the facts observed in proportion as the corollaries I am about to establish require support. I may only premise, that I watched the patients strictly, and that I very frequently prepared, and myself administered, the articles of food whose effects I studied.

1. Animal food satisfies hunger more completely, and for a longer time, than vegetables; this fact has been universally and at all times admitted, I therefore refrain from speaking of any observations in proof of its accuracy.

2. Animal food is more proper to be attacked by the digestive organs than vegetables. The proof is as follows:—The residue which Mme. L. passed by the wound when she had eaten of chicken or mutton chop, was such as made it impossible for me to discover any analogy between it and the ingesta; on the contrary, when Mme. L. ate of spinach, vegetable soup, fat soup with carrots, I distinguished all these different vegetables, as they issued from the wound, perfectly unchanged. My patient and I could even detect the various vegetables which had entered into the composition of her *soupe maigre*. Comparative anatomy strengthens this observation, for nature has multiplied and rendered complicated the digestive organs of the herbivora much more than of the carnivora. This would

alone have given grounds to infer that herbaceous vegetables were converted into chyle with greater difficulty than animal substances.

3. Animal substances remain for a longer time than vegetables in the alimentary canal. Salad, prunes, apples, spinach, always appeared at the wound after the lapse of an hour; animal food never arrived there in less than three hours.

4. Aliment, whether of a vegetable or animal nature, remains in the alimentary canal for a length of time, corresponding to the quantity of nutritious juices it contains, and as the state of the apparatus permits it to extract a larger quantity of these.

Proofs.—We have just said, that vegetable arrived sooner than animal substances at the wound. To the facts quoted let us add the following:—On more than ten occasions I administered vermicelli dressed in water with butter, and panada, to Madame L.; it was never until two hours after its introduction that either of these aliments arrived at the false anus; both were always so much altered as not to be recognizable. We have seen, on the contrary, that salads, prunes, &c., were passed at the interval of an hour without alteration; in this event, the appetite returned much more speedily than in the former. Another fact is this, the residue of boiled food arrives more promptly than that of broiled substances at the wound. And further, I prescribed during five days for M. A., a patient who had, to be sure, a very moderate breach in the intestine only, for glysters and even a little honey procured him stools by the natural passage; I prescribed, I say, for each repast, a beef-steak or a chop, or the wing of a fowl, adding to these articles either spinach, prunes, or salad, and the patient regularly passed the vegetables by the wound at the end of an hour, whilst the animal substances continued to traverse the intestines to be properly evacuated by the aid of glysters at a later period. It seemed as though the digestive canal, anxious to free itself of these vegetable substances, from which it could extract nothing, and contracting unceasingly to expel them, had taken advantage of the opportunity which the preternatural opening afforded it of throwing them off, whilst with a sort of predilection, or rather by a true elective attraction, it retained the animal substances which could recompense it for its labour.

5. The habit of living on a mixture of slightly assimilable substances exercises and developes the muscular coat of the stomach, which at every instant is contracting to force these matters into the intestines. This kind of diet, moreover, leaves the mucous membrane in a state of inaction; on the other hand, the habit of living on substances in which the nutritious principles are much concentrated, excites the action of the mucous membrane greatly, and gives a sort of respite to that of the muscular.

6. In reference to the influence which the cohesion of alimentary matters exerts over their mode of operation, the following is a summary of my observations:—Possessing like quantities of nutritious juices, the least coherent species of food traverses the digestive canal with the greatest celerity. I found that the residue of eggs, boiled in water for two minutes only, was passed about an hour and three quarters after their injection; hard-boiled eggs, on the contrary, were always much longer of arriving at the wound.

7. But when two kinds of food contain very unequal quantities of nutriment, the influence of cohesion ceases to be felt, and the most nutritious aliment, although entirely without cohesion, does not on this account fail to remain for the longest time in the digestive canal. In proof of this, I found that when I gave raw and dressed fruit, dressed vegetables, carrots, &c., these all appeared at the wound within an hour. The residue of strong soup, however, did not reach the preternatural opening in less than two hours or two hours and three quarters, according to the quantity of bread which I added.

8. The alteration which the food undergoes in the alimentary canal, is also relative to the necessities or wants of the other organs; this fact, if not attended to, may lead to the formation of conclusions different from these we present. Having got M. S., affected with a preternatural anus, to observe a very severe regimen for some days, I then made him take different vegetable aliments in small quantities: all were discharged very much altered. I even gave a salad (*à la scanolle*) without bread, and an hour afterwards a yellow-looking residuum began to come away, guttatim, from the wound, in which I could detect no trace of the salad. As this was one of the first experiments I made, I was led to believe, in opposition to the opinion of M. Lallemand, that such herbaceous vegetables were completely changed by the digestive organs: but it was not long before I had occasion to perceive my own error and the exactness of the conclusions adopted by one of the good observers of the present day.

9. When the wants of the organs are not pressing, the digestion, or, if it be preferred, the alteration of substances that are but little assimilable, such as crude or dressed fruits, carrots, spinach, and many other vegetable substances, begins towards the ileum. I have always observed that these substances resisted the action of the gastric acid and mucous juices, as also that of the biliary and pancreatic fluids; I have never seen them, presenting traces of alteration, reach a preternatural anus, which I judged, from the intervals at which hunger was experienced, and from the odour and colour of the residue passed, to exist towards the ileum; nevertheless vegetable substances are, in the majority of individuals, very much altered when they are evacuated in the natural way.

GENERAL PRACTITIONERS.

At an adjourned Meeting of General Practitioners of Medicine, held at the Crown and Anchor Tavern on Saturday last, Mr. HAYES was again unanimously called to the Chair, when he addressed the Meeting as follows:

Gentlemen,—Of the various Resolutions which it was intended to submit to you at the last Meeting, two only were put and carried; the time occupied in their discussion preventing the consideration of the remainder, which constitute, therefore, the business of this evening. But before we proceed to the subject of our considerations, I wish to make some observations, and the rather, as in my former exposition and reprobation of the 5th clause of the Apothecaries' Act, I appear to have been a good deal misunderstood.

It has been supposed, Gentlemen, that in the strong and numerous objections which I made to that Clause, I was desirous to shield from punishment or fine such persons as should wilfully, falsely, and fraudulently compound the prescription of a physician.

The resolution which is about to be read to you will sufficiently show what were the sentiments of those who framed it, with regard to the point in question, viz. the sophistication of drugs, and the unfaithful composition of medicines, nevertheless it seems to me most consistent with our own honour, as it is with truth, that we should distinctly disclaim the feelings imputed.

Gentlemen, I consider the compounding of a prescription with scrupulous fidelity, to be not only an act of moral propriety, but an indispensable obligation, and that he who undertakes the compounding, or, in ordinary language, the making up of a medicine, enters into an implied, I may say a solemn contract, that he will mix and prepare that medicine with drugs of unexceptionable quality, and with all possible accuracy, so that it may be in exact conformity with the wishes of the gentleman prescribing, and as far as the present state of medical science will allow, efficient to the end proposed.

This, Gentlemen, is due to the physician who writes the prescription, for on him principally the responsibility must rest; it is due to the honour of the profession, of which the apothecary is a member; it is due to his own character for integrity, and even to his peace of mind, which, especially if the case should prove untoward, must be deeply wounded by the consciousness that he has caused, or contributed to the termination, and, above all, it is due to the patient, whose well-being it is the solemn duty of the practitioner to watch over and promote.

I can conceive nothing, Gentlemen, more abominable than for the practitioner, through selfish or sordid considerations, to interpose between the physician and the patient, and thus frustrate alike the scientific measures of the one and the just expectations of the other.

The objections which I urged, and I may safely appeal to the recollections of the numerous assembly then present, went to show, that the practitioner, for various reasons, *ought* not to be compelled, as by that clause he *is*, to make up prescriptions whether he pleases or not; nor can I allow that mere negligence, not wilful nor corrupt on the part of an assistant, should subject his employer to the necessity of relinquishing his profession altogether; no, although such negligence were to occur *three* several times in the course of a long and useful life.

It must be recollected, Gentlemen, that as the law now stands, an assistant must have qualified himself for the situation referred to, by undergoing an examination at Apothecaries' Hall, the Examiners certify for him that he is fully competent to the duties which he undertakes; in the language of the Resolution, therefore, he comes accredited into the office; but if this qualified assistant be guilty of negligence, a fine is liable to be imposed, not on the individual committing the mistake;

not on the persons who have certified to his competency; no! bnt on the unfortunate practitioner who, on the faith of that certificate, has received him into his house, and who confides in his accuracy.

Now, Gentlemen, I think that the examination, thus required, is a just and proper measure—an assistant is thereby rendered of more importance in the scale of society; under particular circumstances, or in the absence of his employer, he *may* be called upon, and he often *is* so called on, to officiate in cases of difficulty and danger. The welfare of the public, therefore, requires that he should be an educated, and so far as his youth will allow, a competent person, and it is to be regretted, that the state of the profession limits the recompense of his services within such narrow bounds; but I think that after he has qualified himself by a course of study, and obtained, in due form, his certificate, the *onus*, so to speak, of his conduct, ought not to rest so heavily on his employer.

You will perceive, Gentlemen, so far have I been from asserting that negligence or misconduct in the compounding of medicines is not reprehensible, that I think it deserves the severest reprobation, as an offence deeply injurious to society, and to the character of that branch of the profession. (*Applause.*)

There is, Gentlemen, another point on which I am desirous to be clearly understood; it has been said, I am told, that several Practitioners have declined attending here to-night, "because no prospect seemed to be held out, of immediate benefit to their class, or, in other words, of increasing the emoluments of the profession"

To this charge, my abler colleagues and I must, per force, plead guilty, but we say in reply, that it has not been our object; we have had, in our minds, other considerations, and of a more honourable kind; into no part of our resolutions has the word emolument found its way; if we mean *really* to benefit the community, nay, to advance our own respectability; if we intend to interest the legislature, or the public, in our proceedings, it must be by a total abandonment of all sordid motives; we must impress them with the conviction, that we are not seeking any selfish or exclusive advantages, but that the whole course of our proceedings is in strict harmony with the profession we made at the outset, viz. that we sought the public good.

To those who are of my own standing, or even who have fairly engaged in practice, it might seem arrogant in me to offer advice, but I trust, that to our younger brethren (on whom, in a few years, must rest the maintenance of the respectability and usefulness of our profession;) I may say, Gentlemen, if you look to the practice of medicine as a fruitful source of gain, and that you shall amass wealth from your talents and exertions, do not enter on our profession, for you will be egregiously disappointed in your expectations. You have taken a very erroneous view of the prospect before you, and the sooner you retrace your steps the better; perseverance can only lead to farther disappointment, and increased chargrin. As a source of wealth, therefore, it will mock your pursuit—no, no, Gentlemen, in the language of that inimitable writer, Goldsmith, (used on another occasion,) I would say "if you are for a genteel easy profession, bind yourselves for seven years to turn a cutler's wheel," but never think of the practice of medicine; its calls and its cares, its fatigues and its anxieties are not for you, since they never can be compensated by *pecuniary* reward. You must lay your account to experiencing cavilling and coldness, where you are entitled to confidence—*suspicion*, and sometimes to say *ingratitude*, for much kindness received, even after you have devoted anxious days and sleepless nights to the preservation and welfare of your patient.

Gentlemen, it may be readily supposed that at my age, busily engaged as I have been from an early period of life, in the study and exercise of our profession, I must have seen a good deal of human affairs; I have, indeed, mingled with various descriptions of men, of every profession and business, several of them endowed with extraordinary abilities and of most persevering industry; the result of my deliberate observations is a conviction that there is no profession nor occupation in life in which there is so large an expenditure of intellect, and of labour; none which is fraught with so much of mental anxiety and bodily fatigue, and at the same time so slenderly remunerated, as the medical profession, taken not in a restricted sense of these words, but with reference to its several branches; yet be not disheartened, to the medical practitioner, almost exclusively, is given the *glorious*, I had almost said the *godlike* attribute of alleviating largely the miseries of mankind, and of rescuing our fellow-creatures from danger and distress.

In this hope, if you faithfully discharge the important duties of the profession, you can scarcely be disappointed; and even if the consciousness of having deserved well of mankind be insufficient to console

you, there is yet in reserve a reward which you cannot fail to reap.—(*Applause.*)

It only now remains, Gentlemen, that I recommend to you the appointment of a Committee, agreeably to the tenour of one of the resolutions, invested with powers as ample as the occasion requires, and that a subscription be entered into for the purposes which you have in view

Lastly, let me recommend to you, in the discussion about to take place, the utmost courtesy and forbearance; be assured that an opposite course would be productive of misrepresentation abroad, and injury to our cause, and I cannot help expressing my fervent hope, that whatever may be the collision of sentiment, however numerous may be the objections to the course recommended, no gentleman will allow himself in any way to debase the useful and highly respectable profession to which we all belong, and which we are anxiously endeavouring to uphold and exalt.

(The conclusion of the worthy Chairman's address was succeeded by loud and long-continued cheering.)

Mr. ALCOCK stated, that the few observations which he had made at a former meeting had been greatly misrepresented, in making it appear that he was engaged in preparing ignorant candidates for examination, which was wholly without foundation.

The instance of a candidate, grossly ignorant in anatomy the day before he passed his examination, to which he had alluded, was communicated to him by a gentleman who was in the habit of preparing candidates for examination at Apothecaries' Hall, and did not relate to the College, as stated in the reports. The misstatements of which he complained had appeared in the Observer and the Morning Chronicle, and although he had written to the Editors to point them out, they had not, so far as he knew, been corrected. He further observed, that far from engaging in preparing persons for, or approving of the existing imperfect systems of medical and surgical examination, which he believed to be fraught with danger to the health and lives of the community, he had steadily maintained as essential to the security of the public, that these examinations should be so comprehensive and efficient, that no preparation by question and answer should enable an ignorant candidate, incompetent to the duties of the medical profession, to obtain a legal sanction to practise, and thereby inflict misery by his ignorance.

Mr. Alcock proceeded to point out the degrading influence of the third and fifth clauses of the Apothecaries' Act; the former of which subjects the shops of Apothecaries throughout England and Wales to search, by persons, the rivals in trade of those who may supply them, without any warrant from a magistrate, or any alleged deviation from rectitude, but merely by the authority of the Society of Apothecaries. The natural result of such a power was to drive the timid to the shop kept by those to whom this enormous power was intrusted.

The fifth clause was still more objectionable, since, with many other incongruities, it subjected slight or unimportant errors to the same excessive penalties as the wilful and fraudulent sophistication of remedies. In fact this clause placed the Apothecary in a worse condition than the hackney coachman; for though the coachman may be fined for refusing a fare, yet he is not prohibited from following his occupation in future; but if the Apothecary be found guilty of refusal to compound the prescriptions of certain physicians, he is liable to fine for the first and second offences, and for the third to be rendered incapable of following his profession in future, unless by promise and security that he will not again be guilty of the like offence!

That the Apothecaries' Act had been useful either to the Profession, or the public, was more than he had been able to learn; for whilst any individual might practise with impunity, by calling himself chemist and druggist, the few individuals who had been prosecuted under this act had been, by their extreme ignorance, so perfectly insignificant, that it may be doubted, whether the practice of the whole of these individuals were equivalent to that of one well established retail druggist.

That the act had not been without its use to the Society of Apothecaries might be inferred from a document ordered by the House of Commons to be printed last year, from which it appears that the amount received by the Society in fees for examination in a period short of ten years, exceeded the sum of 17,000*l.*; of which the Society had only paid for the important services of Examiners, Secretary, Courts to elect Examiners each year, servants, for extra trouble, furniture for examiners, &c., the small amount of 10,000*l.* and upwards!

Mr. Alcock concluded, by proposing the following resolution:—

"That the third clause of the Apothecaries' Act of 1815, subjecting the shops of Apothecaries throughout England and Wales, to be searched by persons deputed by, and forming part of, the Society of Apothecaries, which Society, being a

trading Company dealing in the articles to be examined, cannot be wholly disinterested, is degrading to the character of the Apothecary, and without any corresponding benefit or protection to the public."

Mr. ADAMS seconded the Resolution, which was then put and carried unanimously.—(*Loud applause.*)

Mr. CHURCHILL, in proposing the next Resolution, said, the Act had emanated from a trading company. He thought it degrading to an apothecary to be the slave of the physician, in the way that obnoxious clause, which the Chairman had so justly stigmatized, seemed to render him. If this clause were suffered to remain, he should really fear to be pointed at, as he walked the streets, as one of the persons who were most disgracefully subordinate to the physician. All who valued their own respectability, or the dignity of their profession, ought, he was of opinion, to prevent any degrading interference in their own department. He, however, did not think there was a disposition on the part of the physicians, *generally*, to obstruct the apothecaries in the honest discharge of their duty. He proposed the Resolution relative to the 5th Clause of the Apothecaries' Act, for which see THE LANCET of March 4.—Carried unanimously.

Mr. FINCHAM, on moving the 5th Resolution, which has been already given in THE LANCET, (vide Meeting of the 25th of February,) stated several instances of gross mal-treatment of diseases on the part of chemists and druggists, who had, notwithstanding their entire incompetency, ventured to prescribe and administer medicines to persons suffering from complaints which they had quite misunderstood.

Mr. CHURCHILL thought that the evidence of druggists ought not to be received on Coroners' Inquests, as many lives had been sacrificed through their ignorance. Their evidence, in general, was of a most loose and vague description, and wholly unworthy of being received in a court of justice, in cases where the lives of individuals might pay the forfeiture of their mistakes.

The next Resolution (for which also see THE LANCET of March 4) was moved by Mr. BLATCH, who stated very briefly his firm conviction, that it was absolutely necessary, for the safety of females, that all persons desirous to practise the art of midwifery, should undergo an examination, in order to avoid the mischiefs which, from his own experience he could testify, were continually arising in that branch of surgery, as at present practised.—Carried unanimously.

Mr. JONES said, that apothecaries, after a long and expensive education, were compelled to sacrifice their time and health, without any adequate return, while the druggists bore away all the reward. The druggists reigned absolute masters of the field; they certainly appeared, in many instances, to hold the physician in complete dependence. After all, they were only tradesmen, unstudied in the various and solemn duties of the profession, and therefore had no right to practise the science of medicine. If apothecaries were bound to make up physicians' prescriptions, the latter ought, in return, to be obliged to send their prescriptions to be compounded by the apothecary, and not to druggists, who were not under the same compulsory regulations. It had been said, that the ancients endeavoured to make the study of medicine a *science*, and failed; but that the moderns had tried to make it a *trade*, and had succeeded. If the insinuation had any foundation, it could only apply to the druggists, and not to the educated practitioner.

Mr. POWELL, in an appropriate speech, then moved the following Resolution:—

That the Committee now appointed be empowered by this Meeting to take all such measures as they may deem best calculated to further the objects in view; and, whenever they shall think it expedient, to call a general meeting, to which are to be submitted the draft of the proposed Petition, and the general result of their deliberations.

The resolution respecting a Petition to Parliament (for which see THE LANCET of the 4th instant) was, with a short prefatory address, moved by Mr. Hillman and seconded by Mr. Adams.—Carried without opposition.

Mr Randall, Mr. Jervis, (from Margate,) and several other gentlemen, whose names we could not collect, severally addressed the Meeting, and were heard with great attention; but we regret that the limits assigned to this part of our work do not allow of our attempting to give their observations.

It was afterwards resolved unanimously, that a Committee, consisting of fifteen gentlemen be appointed, to carry into effect the measures proposed; that a subscription be immediately entered into to defray the necessary expences, and that this Meeting do now adjourn until re-assembled by the Committee.

Thanks having been voted to Mr. Hayes for his impartial conduct in the chair, that gentleman briefly returned thanks, and the Meeting then separated

To the Editor of THE LANCET.

Glasgow, March 7th, 1826.

SIR—In giving the following a place in your next Journal, you will be conferring an obligation on a constant reader.

In the course of Mr. Lawrence's speech at the late Meeting of the 18th ult. the following observation falls from him: "But, Gentlemen, I have a more material objection to state, and it is to the catalogue of the schools of instruction to which the privilege of recognition has been conceded—Aberdeen, Glasgow! We know, Gentlemen, that at least anatomy cannot be studied in those places with any hope of success. We are all, I believe, aware, and no one is more ready than myself to acknowledge the great talents and acquirements of the Gentlemen at the head of the anatomical schools in those places; but we are also aware that they are destitute of 'subjects,' and without subjects, without the necessary means, no talents in the teacher, no acquisition of which he can boast, no peculiar fitness for the office of instruction on his part will avail the student in the study of anatomy."

Had these observations fallen from any less conspicuous character, they would perhaps have passed unheeded; and in attempting to prove Mr. Lawrence's opinion erroneous in the most essential point, I can only suppose him to have been ignorant of the real state of this school at least, with that of Aberdeen I have no personal acquaintance. Had such remarks fallen from any other, and with whose character I was less acquainted I should have called them illiberal; those, however, who have the pleasure of knowing Mr. Lawrence will say, "that trait forms no part of his character."

His principal charge against the schools mentioned by him is the want of subjects. As far as this school is connected with the charge, I can vouch for its incorrectness. During the whole of the session there has been no lack of subjects here; on the contrary, there has been as many as six in the rooms at a time all occupied by students; and now, far advanced as the season is, there are no less than three occupied, and two others ready when called for; added to this, Sir, we have been, and are still supplied with them, at the moderate charge of four guineas per subject, (injected if required,) whilst in Edinburgh the lowest price which has been given for subjects is nineteen guineas, and this by a private lecturer. I can, as well as many others, vouch for the fact of twenty-five guineas being refused for a subject offered at the College the commencement of this session. At this price, Mr. Editor, there will be found very few laborious dissectors amongst any number of students.

I myself, Sir, was a pupil of one of the oldest and most respectable schools in London, consequently may be allowed an opinion on this subject. I know what dissection in London is, and what it is in Glasgow or Edinburgh, the conveniences attending each with their respective collateral advantages I am also aware of; and while I give the palm to London for the scope which it offers to a student in every branch of his profession, candour compels me to say that Glasgow offers advantages quite sufficient to any student who comes and sits down with an intention to learn his profession. Anatomy learnt from books we all know is of very little practical use, and would eventually only mislead the student; if a student wish to learn anatomy he must dissect. In vouching for the truth of the above statement, I shall be borne out by every student in the anatomical classes of Glasgow.

Palmam qui meruit ferat.

I am, Sir, yours repectfully,

VERITAS.

To the Editor of THE LANCET.

SIR,—On reading in your Number of Feb. 25th an account of the Meeting, that took place in the Freemasons' Tavern, on the evening of the 18th ult., for the purpose of devising the best means for remedying the abuses which exist in the government of the College of Surgeons in London, I was much pleased with the concise, clear, able, and extensive manner in which the abuses were pointed out by the eminent chairman, Mr. Lawrence. In my opinion, his able and independent conduct that evening does credit to his great talents.

Having so premised, you could not suppose that I am about to find fault. Nor is that my intention; but it is my object, to point out what I consider to be an inaccuracy arising from not being possessed of correct information. An inaccuracy not only calculated to mislead the public, but to injure the reputation of a school that is not surpassed in its opportunities for affording anatomical, medical, and surgical knowledge by any school in Britain. In this I am sure of support from every individual who has studied in that school and elsewhere, and the number is not few.

The expression which I should wish to be corrected, is contained in the following

passage of Mr. Lawrence's speech. After stating many of the corrupt laws, which exist in the government of the College, he says: "But, Gentlemen, I have a more material objection to state, and it is the catalogue of the schools of instruction, to which the privilege of recognition has been conceded—Aberdeen, Glasgow! We know, Gentlemen, that at least anatomy cannot be studied in those places with any hope of success; we are all, I believe, aware, that no one is more ready than myself to acknowledge the great talents and acquirements of the Gentlemen at the head of the anatomical schools of those places: but we are also aware, that they are destitute of subjects; and without the necessary means, no talents in the teacher, &c. &c., will avail the student in his study of anatomy."

I am ready to agree with Mr. Lawrence, that anatomy nor any other science cannot be studied successfully without the necessary means; but that the school of medicine and surgery in Glasgow is destitute of those means I most unequivocally deny, and shall endeavour to point out the error of the assertion.

In 1814, upwards of 400 pupils attended Dr. Jeffreys' anatomical lectures; and in the same season the lectures of Mr. Pattison, the able successor of Allan Burns, and those of Drs. Monteath and Robertson, were also very numerously attended. The students of anatomy in Glasgow that season, in all amounting to about 800, and I am sure that this calculation is considerably within the actual number. Notwithstanding, these schools being so crowded, I never knew a student obliged to wait for longer than three or four days before he could be amply supplied with dissection. At the moment I am writing this, one of my friends, who is at this time a pupil at one of the largest anatomical schools in London, tells me that he has been obliged to wait for upwards of a month, and to this day has not been able to get a single extremity. Such a scarcity I have never seen in Glasgow. I have known a difficulty of procuring bodies to exist, for two or three days, both in Edinburgh and Glasgow, but never knew the supply so inadequate to the demand in either of those schools as in the instance which I have just now cited; and the demand amongst 800 individuals must have been considerable every person must allow, and for that great number a sufficiency was always found.

That anatomy cannot be studied successfully in Glasgow is a most sweeping conclusion. I should wish to know from whom Mr. Lawrence received the information, warranting such, and I doubt not but the authority would be found to be vague and incorrect. Allow me, Sir, to say, that I have studied in Edinburgh and Glasgow, and have spent two years of my time in going through the hospitals and anatomical schools of London, and that in all its schools of anatomy, which existed four years ago, I have had most ample opportunities of knowing the means they afforded their students for acquiring anatomical and surgical knowledge, and highly as I appreciate the talents of their teachers, and their unremitting endeavours to instruct the students in the principles of their profession—divesting myself of every thing like prejudice—I cannot agree that the schools in London are, in any one point of view, superior to those of Glasgow; but, on the contrary, it is my most decided opinion, that they are in some respects inferior. This I state with every deference. In giving an opinion of this kind, it ought to be conscientious, and if I am wrong, I am not singular. I never knew an individual who had studied in Edinburgh or Glasgow, and afterwards came to London for that purpose, but was egregiously disappointed. The system of the latter is different, and certainly not improved upon. However, I am ready to acknowledge, that the spirit for acquiring minute anatomy seems to me to be greater amongst the London than the Scotch students; but more cannot be said, and that arises from the regulations of the College not enforcing the study of any other branch of the profession but that of anatomy and surgery. Whilst the student in Scotland must qualify himself for being examined in all the collateral branches of the profession; viz. anatomy, physiology, surgery, theory and practice of medicine, materia medica, pharmacy, and chemistry.

In consequence of these diversified studies, the sole attention for the time cannot be bestowed on anatomy as in London, nor would it be proper; but to make up for this, the period of study is much longer—sufficiently long to enable a person of ordinary talents to become well acquainted with the principles of the whole. And after all, if I may be allowed to judge from my intercourse with the students of both London and Glasgow, the latter are not in the least inferior to the former, even in their anatomical acquirements; there has always seemed to me to be more of prejudice than truth in the report. In proof of what has been stated, I should like Mr. Lawrence to inform me, whether or not he has known many Glasgow students rejected at the College of London for

their want of knowledge of that important branch.

I can tell Mr. Lawrence of many from Glasgow who had received their appointments for a public service, before they were qualified to pass their examinations in Glasgow or Edinburgh, from not having fulfilled the period of study required at these colleges. Such individuals have come to London and been immediately admitted as Members of the College; instances of this description are of daily occurrence. These individuals are not found deficient in that branch.

That anatomy cannot be studied in Glasgow! I am surprised at the inconsistency. If I do not mistake, Mr. Lawrence, at the last meeting of the Members of the College of Surgeons, eulogized Mr. Allan Burns as an anatomist and surgeon, and it appears to me that he also said something to the same effect of his successor, Mr. Pattison. Where did these gentlemen learn their anatomy? In Glasgow! The first from his brother, John Burns, the present Professor of Surgery in the Glasgow University; the latter, from Mr. Allan Burns; and both in that very place where anatomy now cannot be taught. It may be said, that Mr. Allan Burns was a Member of the College of Surgeons of London; so he was; but I can assure Mr. Lawrence that he did not imbibe his scientific knowledge of anatomy from it, or any of its members. But why should I say so much about this expression of Mr. Lawrence; it avails nothing; he must have meant nothing by it. If I do not misunderstand him, his wish is, that students from all parts of the world, who can produce certificates of having received a liberal education, medical and otherwise, should be admitted for examination, and if found properly qualified, that they should be received as members; and if not, by all means let them be returned to their studies.

Under these circumstances, what had he to do with the supposed inefficiency of the anatomical schools of Aberdeen and Glasgow? When their students are found not to be competent, as I before said, return them to their studies; but why pass a censure upon a school or its pupils before putting them to the test of a trial. Such a proceeding would be ungenerous, and altogether repugnant to our common feelings. But what is Mr. Lawrence's reason for not including Edinburgh amongst the inefficient schools? The fact is, that so far as subjects go, the dissecting-rooms of Glasgow are three to one better supplied than those of Edinburgh, and this can easily be accounted for. I have had several years' experience in both schools, and I can assure Mr. Lawrence, that Dr. Barclay's dissecting-room was, in a great measure, supplied from Mr. Pattison's, of Glasgow, in 1816 and 1817. Mr. Lawrence, in his oration, could not have included Edinburgh; it would not have been so well received; but coupling Glasgow as he did with Aberdeen, calculating a little upon the credulity of his hearers, and upon the general prejudice that exists against Aberdeen, it must have been received as was intended, issuing from such a source.

Regarding the medical school of Aberdeen, how far popular feeling may be correct I know not, but an inference drawn from that alone ought not to be considered as infallible. But in truth, I must say, that their mode of granting diplomas, or of selling them as it is termed, goes a great way to raise the public voice against them, and in some respects deservedly so. However eminent the persons possessing their *honours* may be, still there is a stigma attached to them, and it will continue so long as they are granted in the present loose way. But be that as it may, I most unequivocally differ from Mr. Lawrence in the opinion, that the admission of certificates from Aberdeen and Glasgow constitute the worst of the bad regulations of the College of Surgeons; and that this is the inference to be drawn from Mr. Lawrence's speech, as reported in THE LANCET, no one can deny; and Mr. Lawrence himself, upon a second consideration, must agree with me, that if worse laws than that did not exist in the government of the Royal College of Surgeons, that there would be no great need for reform.

I am ready to absolve Mr. Lawrence from any feeling of prejudice or illiberality, or of an intention of misleading his hearers; no such motive could ever induce Mr. Lawrence to wander from the truth, and it is from a full conviction of this, that I have been induced to lay the foregoing statement before you, and as an act of justice to which I think the surgical school of Glasgow is entitled.

I have sent you these observations, relying upon your general wish to correct abuses, and your anxious desire, at all times, to state facts.

I should have sent you the above a week since, but, although one of your constant readers, I had not an opportunity of seeing your number containing the article alluded to until a few days ago.

I am, Sir, your's, &c.

10th March, 1826. J. T.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

Cancer of the Penis.—Amputation.

On Tuesday, February 21, Mr. Key amputated the penis of a patient, in Naaman's Ward, on account of cancerous disease.

J. R., the subject of this disase, is a healthy looking man, about 40 years of age, his occupation is that of a shipwright. He states, that ten months since, his attention was directed to two small warts which appeared on the penis. One of these, he says, was on the glans, and the other on the foreskin. In the course of four months, the warts had much increased in size, and had also ulcerated; at this time, too, he found great difficulty in retracting the foreskin of the penis. The disease was not attended with much pain, and he continued at his usual avocation until the period of his admission into the hospital under Mr. Key on the 1st of February.

There was a large warty sore, on the under part of the prepuce, which readily bled on being wiped, there was complete phymosis, and a gleety discharge issuing from between the glans and prepuce. The penis to a considerable distance backward had an indurated feel; there was no glandular enlargement in the groin.

At the request of Mr. Key, Sir Astley Cooper saw the man shortly after his admission, and he recommended amputation, as "affording the only chance of getting rid of a malignant disease."

The operation itself was exceedingly simple, Mr. Key first took a piece of broad tape and tied it firmly round the penis, near to the symphysis pubis; he then took a knife, and, with one circular sweep, made an incision completely through the penis.

The tape was now loosened, and four bleeding arteries secured, a dossil of lint applied over the part, and thus the operation was completed.

In the evening, the patient was seen by Mr. Key, he was suffering much pain from retention of urine, the blood having coagulated over the orifice of the urethra, and the lint adhering thereto, formed a complete obstacle to the passage of urine. The dressings were removed, a catheter passed, and the bladder emptied; the catheter was ordered to be kept in during the night.

22. Free from any constitutional disturbance, the catheter was withdrawn this morning. Poultices to be applied to the part.

24 and 25. Wound healing kindly; continue the poultices.

March 5. Patient nearly well; the catheter is occasionally used; the urine is not evacuated with its usual force.

Operation of Lithotomy.

W. Shepherd, ætat. 16, was admitted into the hospital on February 1, under the care of Mr. Key.

He has for three years laboured under the following symptoms:—severe pains in the region of the bladder, much increased after emptying that viscus, darting pains in the perinæum, extending along the penis; sudden obstruction to the passage of the urine. He passes a large quantity of mucus, and occasionally blood in his urine.

With these symptoms, he was admitted into the hospital in August last, and sounded by Mr. Key, who failed in detecting a stone, and hence he was treated for disease of the bladder. Alkaline medicines were administered, and he left the hospital in the course of a few weeks, somewhat relieved.

After his second admission, Mr. Key repeatedly sounded him, sometimes he could detect a stone, at other times no stone could be felt, the bladder was exceedingly irritable, and the operation of sounding occasioned excruciating pain.

Sir Astley Cooper was requested to examine the patient: he succeeded in finding a stone—this induced Mr. Key to decide upon performing the operation, the symptoms too were unabated, and the patient suffered much distressing pain.

Operation.

The operation was performed on Tuesday Feb. 21, Mr. Key made the external incision, and cut into the bladder with his usual facility, but a considerable time elapsed in the extraction of the stone. The forceps repeatedly slipped from it, bringing away fragments. After several trials it was at length effectually grasped and brought away. The calculus was of the size of a large walnut, consisting of a lithic acid nucleus, coated with a layer of triple phosphate, which was exceedingly friable. It may not be unimportant to remark, that the patient's pulse has always been very quick; on the morning of the operation, it was 120, and on the second day afterwards it was upwards of 130, although free

from any other unfavourable symptom, having little or no tenderness of the abdomen on pressure, bowels open, and urine passing freely through the wound.

Cancer of the Mamma.

The following is a case of cancerous disease of the female breast, occurring at the age of 28:—Winifred Billington, aged 28, unmarried, of dark complexion and spare habit, was admitted into this Hospital on the 25th of January, with a carcinomatous affection of the left breast. She states, that her courses have always been regular, and that no blow or injury was recived previous to her breast becoming diseased. It may, however, be worthy of remark, that some time before she discovered this affection, her health became much affected during a close attendance on the death-bed of her maternal parent.

It is about two years since she was first annoyed by slight pains shooting occasionally through her breast, which, leading to an examination, a small tumour, the size of a filbert, was discovered. She did not, however, for a considerable time, take any further notice of it, until the increased size of the tumour and intensity of the pain, which she observes was of "a stabbing nature," induced her, last May, to consult Sir Astley Cooper, who directed that the breast should be regularly fomented, and that poultices, composed of oatmeal and beer grounds, should be applied *cold*. Under this treatment, the breast ulcerated in several places, which eventually communicating, a large and foul ulcer was formed. Pills were now given her, which affected her gums very much, and occasioned a copious flow of saliva. The topical applications were the black wash, and an ointment made of the nitric oxyde of mercury and lard. The sore at present bears the following appearance: it occupies nearly the whole of the outer part of the left breast; its edges are irregular, hard, and everted; they are also elevated and surrounded by a bluish tint. The granulations are few and irregular, with corresponding depressions, containing a yellow, ill-conditioned lymph, which emits a most fetid odour. A few eminences may, also, be here and there observed covered by a bleached cuticle; and a discharge is constantly oozing from the surface—thin, excoriating, and highly offensive. The glands in the axilla are enlarged. She was recommended to the Hospital by Sir A. Cooper, to undergo an operation, but her health not being good, Mr. B. Cooper has thought it advisable to postpone it.

Feb. 26. Pulse so quick, and so exceedingly irritable, that the surgeon will not undertake the operation.

March 3. Recommended to go into the country. Linseed poultices are the topical applications, and the medicine ordered to be taken has a reference to her general health.

Permanent dislocation of the Knee Joint.

John Ames, aged 50, a robust husbandman, states, that about three years and a half since, he received a violent kick from a horse, on the fore part of the knee joint, which struck him down. He arose immediately, but found himself unable to stand, his knee falling inwards. Surgical assistance was procured about an hour after the accident, when attempts were made at reduction, but these proving unsuccessful, he was ordered to bed, and a wash to be applied to his knee. No further attempts were made to reduce it after the first trial. He was admitted into this Hospital on February 3d, under the care of Mr. Morgan, the knee presenting the following appearances:—The head of the tibia is thrown considerably outwards and backwards from its natural situation. The external condyle rests upon the inner part of the head of the tibia, and internal semilunar cartilage, whilst the internal condyle forms a remarkable projection on the inside of the knee, occasioning great deformity, and the more so, from the circumstance of the thigh bone being somewhat twisted outwards. The patella is thrown, with its ligament, on the outer side of the external condyle, the articulating surface, where it formerly rested, being easily felt through the integuments, which gives the fore part of the knee a flattened appearance. With respect to the motion of the joint, it is very limited. In progression, the body is bent forwards, and the power of the *extensor muscles* being lost, the leg and foot are drawn onwards, by the flexion of the thigh. The power of the *flexors* is also very confined, hardly enabling him to bring the leg to a right angle with the thigh; but the greatest inconvenience is, the joint giving way inwards, upon which he immediately falls to the ground. No remedy has been contrived for this, nor has it been deemed proper to do any thing for him since his admission.

J. L., aged 45, a woman of spare habit, came into the Hospital on the 5th of February, about four in the afternoon, labouring under the most distressing difficulty of deglutition, and sense of suffocation. It appears, that on Saturday night, whilst at supper, a portion of food became obstructed in its passage through the œsophagus, giving rise to these symptoms. She passed a very bad night, and applied to a surgeon for relief on the following morning, who attempted to pass an œsophagus bougie, but did not succeed; she then came to the Hospital. She states that she has, for sixteen years, laboured under difficulty of swallowing, sometimes becoming worse, at others, somewhat relieved, and that it has much increased within the last four years, during which time she has suffered much for the loss of her husband, and her grief has been not a little increased by having a large family to maintain. Shortly after her admission, Mr. Callaway succeeded in passing a bougie, which, removing the obstruction, afforded great relief. Mr. C. remarked, "That the stricture was seated about the entrance of the œsophagus into the chest." Soon after the introduction of the bougie, she vomited a large quantity of fluid, mixed with blood, which continued at intervals throughout Monday. On Tuesday much better, still the disease, which it is to be feared is malignant, remains. She continued in the Hospital until about the 20th February, gradually improving under the use of the bougie; and before she went out, was enabled to swallow solid substances without any apparent difficulty.

Papular Eruption, succeeding Gonorrhœa.

J. S., aged 16, was admitted on the 1st of February, under the care of Mr. Key. He states, that, on the 11th of December last, he was attacked with a slight discharge from the urethra, and from his account, the disease was of a very mild character;—he had scalding on passing his urine, but the discharge from his urethra was inconsiderable; some slight irritation was felt at the groin, which subsided spontaneously, and during the course of the complaint, which lasted three weeks, he was not troubled with chordee, or any other urgent symptom. He also positively asserted, that he never had a sore upon his penis, and, from a minute examination of the glans and prepuce, there is not any sign of a chancre ever having existed.

About a week after the cessation of the discharge, he was seized with pains in the larger joints, preceded by fever, tenderness about the eyes, and sore throat, which symptoms were closely followed by an eruption appearing successively upon his thighs, trunk, and upper extremities. When admitted, the papulæ were most numerous about the arms and thighs, and their appearance was various—some of them consisted of a simple elevation of the cuticle, with an inflamed margin, others were more pointed, with whitish tops, whilst those which were disappearing seemed to consist of minute scales, which, falling off, left small spots of a dull red colour. The eruption has since gone on without any permanent amelioration, at times partially declining, and again, as suddenly, would a fresh number of pimples appear.

On the 27th, he was seized with a degree of fever and headache, followed by the appearance of numerous pimples on the forehead, which differ from those on other parts in being less acuminated, and slower in their progress to maturation. The following plan of treatment has been adopted:

3. Bleeding to eight ounces; one sixth of a grain of tartarised antimony, three times a-day, and the warm bath, three times a-week.

20. Four grains of Plummer's pill, every night.

March 2, mercury with chalk, four grains every night; decoction of sarsaparilla, twice a-day; compound powder of ipecacuanha, four grains, every night.

ST. THOMAS'S HOSPITAL.

Case of Calculus in the Bladder.

Anthony Wilsmore, a boy about twelve years of age, was admitted into this Hospital on the 23d of February, labouring under the following symptoms:—Frequent desire to make water, followed by considerable pain; it often stops suddenly, whilst voiding, and not unfrequently it is highly coloured with blood, particularly after riding, or much exercise; pain in the loins and abdomen, and in the extremity of the penis; restlessness at night, and involuntary flow of urine. His mother states, that he has been more or less subject to these symptoms for ten years; that when two years old he passed blood frequently, and that his urine was often very thick, but always free from gravel or sediment; at which age, also, he used to pull his prepuce very much, and complained of much pain after passing his urine. In order to

free himself from the severe pain which followed the emptying of his bladder, he used to stand upon his head, in which singular position he found the greatest relief. He was sounded previous to his admission, and found to have a stone. Mr. Green sounded him a few days afterwards, and decided upon an operation.

Operation.

His bowels having been previously evacuated by a clyster, he was brought into the Theatre, and placed upon the table in the ordinary position; a staff being introduced, Mr. Green commenced by making an incision through the integuments from beneath the symphisis, to midway between the anus and tuberosity of the ischium; he then divided the fat and the muscular fibres of the transversus perinæi and accelerator urinæ, and at the same time cut through the artery of the bulb, which yielded a copious hæmorrhage; without securing the vessel, he proceeded to lay open the membranous portion of the urethra to the prostate gland. He then put the finger of his left hand into the wound and introduced the gorget, cutting outwards and downwards towards the tuberosity of the ischium. Having introduced the forceps, he removed the gorget, and readily laid hold of the stone, which shortly after slipped from his hold; he then grasped it a second time, but finding, as he withdrew it, that the parts did not yield very freely, he waited a few minutes for their gradual distension, and extracted it with ease; the hæmorrhage from the artery ceased spontaneously. The calculus was of the mulberry kind, hard, and having numerous irregular elevations upon its surface. It is of a lighter colour than stones of this description usually are, which Mr. Green considers an accidental circumstance. On visiting the patient the following morning, we found that he had passed a good night, and that early in the morning he had slight pain in the abdomen, which was speedily relieved by fomentations. In other respects he is doing well.

Anomalous affection, resembling Stone in the Bladder.

John Newman, a child, about 6 years of age, of a fair complexion, and delicate appearance, was admitted on the 21st of October, under the care of Mr. Green, having the following symptoms—great pain on making water, with sudden stoppage during the evacuation; involuntary discharge of urine, frequently pulls down his prepuce, there is likewise violent pain after the bladder has been emptied, but no blood has been passed.

Mr. Green has repeatedly sounded him, but has not been able to detect a stone, and what is more singular, the symptoms have almost entirely abated within the last fortnight; so that he, not only eats and drinks well, but is disposed to play; skipping about the ward in a most hearty manner. The learned gentleman observes, "that, possibly, some calculous concretion has been formed in the bladder, and that the sudden disappearance of the symptoms may be accounted for, by the stone either having passed through the urethra, or shifted its situation."

Simple Chronic Enlargement of the Testicle.

The two following cases serve to illustrate the beneficial effects resulting from the use of mercury in simple chronic enlargement of the testicle. In the latter case, however, the surgeon does not appear fully acquainted with the value of this remedy, and the application of *mercurial ointment on hot poultices* is certainly novel—if not altogether *scientific*.

Case, 1.—Stephen Alumford, a middle-aged man, was admitted into Abraham's Ward, on the 9th of February, under the care of Mr. Tyrrell, with enlargement of the left testicle. The patient stated, that the disease was of 2 months standing, and it first began to swell, after violent exertion in raising a heavy weight. The testicle is very hard, and enlarged to the size of a person's fist; the epidydimis is equally firm, and the line of distinction between it and the testicle is entirely obliterated; the chord is not at all thickened. There is, also, an effusion of fluid into the cavity of the tunica vaginalis, constituting what is termed hydrosarcocele. He has no stricture, and has not had gonorrhœa lately.

11. Calomel, three grains; opium, one third of a grain, three times a-day. A lotion composed of muriate of ammonia, ℥ss, vinegar a pint, to be applied to the testicle. Bowels to be kept open, by the common purging mixture of the hospital.

16. Mouth slightly affected; swelling somewhat softer.

20. The size of the tumour is lessened, and the hardness is much diminished. The mouth is much affected by the mercury, gums bleeding. Ordered calomel, 2 grains; opium, ½ of a grain, twice a-day.

25. Testicle is almost reduced to its natural size; the quantity of the fluid is undiminished. Continue the pills.

27. Fluid diminished to one half; gums very tender; continue the wash.

March 2. Fluid scarcely perceptible.

6. Perfectly well; the fluid having disappeared.

Case 2.—W. H., aged 30, of dark complexion and general good health, was admitted into Williams' Ward on the 12th of January, under the care of Mr. J. H. Green, with enlargement of the right testis.

The disease in this case had existed nearly three months, and the testis had gradually become enlarged, until it attained its present size (being as large as a double fist.) The testicle had a scirrhous hardness, and the epidydimis was equally indurated; the line of demarcation, however, between that body and the substance of the testicle, could not be felt. The chord was of its natural thickness, and he complained of a dragging pain in the loins. He has not had gonorrhœa lately, nor received any injury to the part, which, upon pressure, does not manifest any great degree of tenderness.

13. Calomel, 1 grain; compound powder of ipecacuanha, 5 grains every night; 12 leeches to be applied to the testicle, and a poultice of linseed meal.

17. No amendment; repeat the leeches.

24. Much the same; repeat the leeches and continue the poultice.

30. Twelve leeches; no improvement; poultices continued.

Feb. 2. Twelve leeches to the testicle; swelling unabated.

6. Repeat the leeches; tumour undiminished.

11. The testicle is of the same firmness, and nearly of the same size as when the patient was admitted. Mr. Green directed a portion of mercurial ointment to be spread on each *hot poultice!* and thus applied to the testicle.

17. Mouth slightly sore; hardness of the testicle much diminished.

24. Mouth continues affected by the mercury; swelling and hardness diminished.

27. Complains of the soreness of his gums, and spits very much; the pills and poultices, with the ointment, continued as before; gradual diminution of the tumour.

March 9. Testicle reduced to about double its natural size, and assuming somewhat its original form; very little hardness left.

13. So well, that he has permission to leave the Hospital.

Operations last week.

Lithotomy, removal of schirrous tumour from the breast, and for fistula in ano, by Mr. Green.

Amputation for diseased Knee-Joint.

This operation was performed in a most awkward and unscientific manner, by Mr. Travers, to say nothing of the time occupied in its performance, which, from the first incision to the removal of the patient, was not less than forty minutes.

ST. BARTHOLOMEW'S HOSPITAL.

An interesting case of Pulmonary Disease, with the application of the Stethoscope.

Edward Collins, 26 years of age, was placed under the care of Dr. Latham on the 26th of January, with extensive thoracic disease. On inquiring into the origin of his malady, we learnt, that about five weeks since, he contracted a very severe cold, which was attended with headache, cough, pain in the chest, and great difficulty of breathing, for which no medical advice had been obtained. The complaint has gone on progressively getting worse, and being unable to work, he could no longer pay for his lodgings, and for the last week he has lain in his clothes on straw. At this present time the respirations are quick and hurried, being 72 in a minute; he has a cough, which is attended with expectoration, and the pulse is 120, not full, but hard and resisting. He further complains of pain in his right side, about the sixth rib, and the heart is felt to have a strong and violent action.

By the *stethoscope*, the respiration was discovered to be greatly impeded on the right side, but rather less so on the left, where there was heard a *shrill squeaking* sound. He lies on his back; tongue white, and bowels open. Attempts were made to abstract blood from the arm, which could not, however, be effected. Dr. Latham, therefore, directed him to be cupped on the right side to 12 oz., and to take six grains of James's powder every four hours for three successive times; milk diet.

27. Has passed an uncomfortable night; says he was relieved a little by the cupping yesterday for about an hour, when the pain again returned, and has so continued. The frequency of the respirations are lessened, being now 60. The pulse continues still hard and resisting, 120. Attempts were made to bleed him in the foot, but without effect. Dr. Latham, in consequence, ordered a strong mustard cataplasm to be immediately applied to

the chest, and a blister subsequently,* with 20 drops of the compound tincture of camphor in almond mixture every four hours.

28. The mustard poultice was on only half an hour; the blister slipped off without producing any effect; the man expresses himself much relieved. The pain has left the side, and is now at the upper part of the sternum. He has slept a little through the night, and the respiration is less frequent. Pulse 120, less hard, but firm; the cough is better, but the expectoration has assumed a partly purulent appearance, tinged with blood. The action of the heart continues violent.

By the stethoscope some *squeaking* sound was still audible on both sides of the chest; but less considerable than it was.

The *action of the heart* regular, the rythymical power being very distinct, or in other words the contraction of the auricles and ventricles were very consecutive. Ordered to take the following medicines:

James's powder, 3 *grains*,

every four hours for three successive times, with the *common saline mixture*, which is to be regularly continued. The blister was directed to be again applied to the right side.

30. Yesterday he became gradually worse, the blister which was applied the preceding day only rose a little. He has been delirious through the night; the respiration has again become more laborious; the lips are livid; the pupils contracted; and the pulse is 120, and feeble. The bowels are open, and the tongue loaded and dry.

Stethoscope. *Squeaking* sound more evident on both sides, attended with the *mucous rattle* on the left. Let the mustard poultice be repeated to the chest, and continue the almond mixture with paregoric.

31. The poultice has occasioned much relief, and he has passed a good night in consequence; the countenance has assumed a less livid appearance; the tongue is again moist, but continues loaded. The bowels have not been open since yesterday. Respiration 40. The pulse has more firmness than yesterday.

Stethoscope. *Squeaking* sound less audible on both sides. Let him take a dose of castor-oil immediately, with six grains of James' powder every six hours for four successive times, and continue the mixture as before.

Feb. 1. Better; has passed a comfortable night; bowels well open; the dyspnœa just the same.

Stethoscope. Squeaking sound quite gone, and only the *crepitous rattle* perceptible. Repeat the James's powder and mixture.

2. Has slept through the greater part of the night, but is evidently worse. There is a dulness about the eyes, with a slight dropping of the upper lids; the tongue is loaded and rather dry, and the countenance has again assumed a somewhat livid hue. The impulse of the heart continues to be heard by the instrument over the whole cavity of the chest. Two distinct sounds are to-day heard, by the stethoscope, one, which, from its resemblance to the cooing of pigeons, Dr. Latham calls a *mewing* sound, and the other, the former squeaking sound. The bowels being confined, a dose of castor-oil was given to him. The cough and expectoration continues about the same; respiration 40; pulse 120, and small. Blister to the chest.

3. On visiting him to-day, we find him lying almost in a comatose state, with his pupils dilated, and the countenance of a very livid hue. The urine is very scanty. Let him take three grains of the recently powdered squill root for three successive times.

4. Urine increased in quantity; bowels open, and tongue much cleaner. Stupor less; eyes more sensible to light, and countenance more natural. Action of the heart less violent. Repeat the squill powder and the almond mixture.

5. Has passed a restless night, which he in a great measure attributes to the irritation from the blistered surface of his chest. Tongue cleaner; bowels open; countenance nearly natural, and the dyspnœa much easier. Repeat the mixture only.

7. Continues improving, and he has passed a comfortable night. Tongue clean; bowels moderately open. The expectoration continues to be slightly tinged with blood, but it is not copious. Continue as before.

9. The respiration continues easy, but the cough is still troublesome. Pulse 104, and moderately full. Complains of a want of sleep at night, and 10 grains of Dover's powder was therefore directed to be given him. Continue the mixture

* The cataplasm was ordered to be made with strong mustard and hot vinegar. In ordering this application, Dr. L. observed, that he had found it a remedy of the most powerful kind, and from the short duration of time requisite for its producing an effect, it must be infinitely superior to a common blister, as indeed he had found it to be.

14. Cough and expectoration much less; and since taking the opiate he has slept comfortably every night.

March 4. No bad symptoms have presented since our last report; occasional doses of aperient medicine have been taken when required. For the last week he has been allowed meat diet, and may now be said to have perfectly recovered.

Case of Chronic Dysentery.

Felix Kenny, a young man 24 years of age, was admitted into John's Ward, under the care of Dr. Latham, on the 5th of January, labouring under a chronic dysentery, which malady he stated he had been afflicted with for the last six weeks. The purging at first was very violent and painful, and for the first three weeks the symptoms continued very distressing. At this time an eruption broke out about the mouth, which, from the appearance it at present presents, we should say was the disease called porrigo larvalis. Since then, the calls to go to stool have been less frequent, but they have continued to be tinged with blood, and of a slimy consistence, and each evacuation is attended with considerable tormina. The pulse is 76, and very feeble, and the tongue furred and red at the edges. Let him take the following pills every four hours:

Quicksilver with chalk, two grs. and a half of each;
Compound ipecacuanha powder;

one pill for a dose.* Warm bath at night, and the following draught three times a day, with two ounces of lime water:

Chalk mixture, one ounce and a half;
Aromatic confection, 15 *grains.*

Milk diet.

6. These remedies have had the effect of completely checking the purging, so that Dr. L. deemed it advisable to order him a dose of castor oil, which acted on the bowels seven times; the motions were at first solid, but were afterwards slimy, and he complains of pain on pressure over the abdomen. Ten leeches to be applied to the abdomen.

7. Very much relieved; the slight tension over the abdomen with the pain has entirely subsided.

10. Secretions natural, both in colour and consistence. Repeat the pills; broth diet.

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* We have before observed, this was the form of pill in which mercury was employed in the diseases at the Penitentiary.

21. Since our last report, he has continued convalescent, and he was to-day discharged cured.

With respect to the Doctor's treatment of this distressing malady generally, we may with safety say, "ex hoc disce omnes."

Thickening of the coats of the Bladder.

A good specimen of what changes may take place in the urinary bladder, as the result of idiopathic disease of the organ, was afforded the students, by the examination of the bladder of a man who died in the Hospital.

While he was in the institution, and for some time previously, he was afflicted with severe pain at times in the region of the bladder; accompanied, as is usual in such cases, with an incapacity of retaining his urine, and in consequence an almost constant and irresistible micturition. No stricture could be discovered in his urethra, although there was occasionally such a spasmodic constriction, attendant on the introduction of a small-sized bougie, as to almost lead to the supposition of such being the case. Worn out by disease and suffering, he at length died, and on examining the urinary organs, the bladder was found to be remarkably thickened, *at the same time displaying a completely fasciculated condition of the muscular fibres*, so extensively had the parietes of this organ been diseased.

On Saturday last, Mr. Vincent performed the operation of lithotomy (due notice of which was posted on the board in the Anatomical Theatre,) on a lad about 17 years of age;—the stone was of the mulberry kind, about the size of a large walnut, and was extracted in a neat manner. The knife was employed in the execution of the operation.

On Saturday, Mr. Earle operated on a little child for a diseased knee, which had existed for some time. The leg had become firmly flexed upon the thigh, and the limb was removed by the double-flap operation; it was executed in a very masterly manner.

The little boy on whom Mr. Lawrence lately operated for stone, has perfectly recovered, and will leave the hospital in a day or two.